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A  
T R E A T I S E  
ON  
THE DISEASES OF CHILDREN.

VOLUME THE FIRST:

CONTAINING

Every disorder of importance falling under  
The more immediate province

OF

THE PHYSICIAN.





TREATISE  
ON  
THE DISEASES OF CHILDREN,  
WITH GENERAL DIRECTIONS  
FOR  
THE MANAGEMENT OF INFANTS  
FROM  
THE BIRTH.

By MICHAEL UNDERWOOD, M.D.

LICENTIAATE IN MIDWIFERY

OF THE

Royal College of Physicians, in London,

AND

Physician to the British Lying-in Hospital.

---

IN TWO VOLUMES.

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VOL. I.

---

THE THIRD EDITION, REVISED AND ENLARGED.

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*Ornari Res ipsa negat, contenta doceri.* MANILL.

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498  
27 LONDON;

PRINTED FOR J. MATHEWS, NO. 18, STRAND.

M DCC XCV.

[Price Ten Shillings and Six-pence in boards.]



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TO THE  
Q U E E N.

MADAM,

HIGHLY honoured in the Permission of laying this Work three times at your MAJESTY'S Feet, it has been my Endeavour to render each Impression, in some Degree, worthy of so high a Patronage. The Advantages resulting from Time and Experience have been especially cultivated to render this Edition as complete as my other Employments, and my Abilities would allow. Should it ultimately af-

ford that Benefit to my fellow Creatures at which I have been industriously aiming, the Public will be greatly indebted to your MAJESTY's kind Auspices. On this Account, as well as the Queen's known Goodness, there is no Person to whom the Work could with so much Propriety be addressed.

I have the Honour to be,  
 With the most grateful Obedience,  
 Your MAJESTY's  
 Most devoted,  
 And most obliged Servant ;

The Author.

Great Marlborough Street,  
 March 25, 1795.



## P R E F A C E.



THE encouragement which the author has met with from the public approbation of the former editions of this work, has induced him carefully to revise, as well as further enlarge this third impression. He has at the same time endeavoured to avoid all unnecessary details, and useless distinctions, as well as extending it to subjects foreign from the immediate design. Should the reader apprehend any little exceptions

in this respect, he will readily perceive the inducement ; and although the accuracy of system should somewhat be violated, it is presumed, it has only given way to motives of humanity and usefulness.

PERFECTLY sensible, however, of numerous defects, the writer relies again upon the indulgence of the Public, though he hopes that, as this edition will be found more compleat, it may be proportionably worthy of a continuance of that favourable reception wherewith the former have been so generally honoured. Particular acknowledgements, indeed, are due for the approbation of the faculty ; and the like candor, it is hoped, will now excuse any alterations that have been intended to render the work easy and familiar to common readers. For the sake of public utility, the writer has

carefully

carefully avoided all technical terms, or has so explained them, and so enlarged on the nature of diseases, and the doses of medicines, that parents, and others not versed in the practice of physic, may find all common directions sufficiently explicit: whenever they appear otherwise, readers of that description should conclude, that the case is too difficult for their management, and that probably the best guide might mislead them.

THE prolixity of other parts may be equally disagreeable to professional men.— For the style in general, indeed, the author pretends to have but little to offer. Had he had more leisure, possibly it might have been less incorrect; though it is hoped, that many of the greater imperfections which appeared in former editions are here  
done



done away. Perhaps, the necessity of clearly and intelligibly expressing what is to be said, may, in this instance, be pleaded with those who expect conciseness and accuracy ; which every writer should aim at. It may therefore be observed, that some consensaneous diseases have been longer dwelt upon, and their remedies oftener hinted, than might be necessary for many readers. To such, however, as are themselves obliged to superintend the health of their children, and to those who derive a happiness from contributing to that of their offspring, there will not be much apology necessary, either for entering so fully into the *little* matters that compose the *second* part of the work, or for enlarging elsewhere on many circumstances that may appear trifling when separately considered. It was, indeed,



indeed, under the expectation of the work proving serviceable to them that it was originally undertaken, and to their notice and protection it is again submitted, in its improved state, with all Deference and Respect.

BESIDES the addition of more than twenty diseases, not noticed before, and some improvements, it is hoped, in the arrangement and description of others, the present edition contains enlarged *Directions for the Management of the Nusserry*, and a Dissertation on the nature and properties of *human-milk*, the result of various experiments, during several months ; forming, as it is presumed, a suitable Introduction to that Part of the work.

THE writer cannot conclude this preface, nor introduce the present edition more properly,

perly, than by adverting to a pertinent remark made by the *Monthly Reviewers*, upon the former enlarged edition of this work. And, indeed, the objection to so comprehensive a tract being addressed to Parents as well as regular Practitioners in physic, is so obvious, that the author has always been aware of it, and was conscious, that in some parts he was obliged to render the work somewhat exceptionable to both ; and accordingly, apologized for it. He was, nevertheless, always persuaded, that such a plan would have its use ; and of this, he has since had satisfactory experience. In vindication of this sentiment he is constrained to observe, without designing to offend any order of men, that he has met with practitioners employed among the lower class of people who need to be instructed

nearly

nearly in the same mode with Parents ; and that in many country places there is no regular practitioner, within a reasonable distance, capable of prescribing so well for many infantile complaints, as intelligent Parents may be instructed to do ; (though, as it has been objected, it is impossible to make them physicians.) And the author has the happiness of knowing, by a correspondence with some ladies of rank, that many of them superintend their own children's health with that exactness and attention, and enter so justly into the causes of many of their early complaints, as to prescribe very judiciously, when absent from town ; as well as afford much relief to the children of their poor neighbours, who might otherwise be far worse attended to.

IT is probable, however, that the intentions of this work, enlarged as it now is, might, upon the whole, be better answered by two distinct publications, (though this must be with some exceptions;) and if the author shall find leisure in the course of the next year, he may, possibly, make the attempt. Should he fail of this, and any other person be disposed to take that trouble, the author, anxious to promote public utility, hereby testifies his consent.

CON-

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## ERRATA.

Page 5, l. 1. for childrens, r. children's.

12, for æra, r. era.

142, for chamomæl, r. chamæmel.

148, last line for fætus, r. fetus.

156, l. 9, for fætida, r. fætida.

165, l. 9, for ostivenefs, r. costivenefs.

182, last line but one for sp ech, r. speech.

275, l. 15. for u til, r. until.

326, lines 16 and 21, and page 327, l. 14, for tartarified, r. tar-  
tarified.

344, third line from the bottom, for recuring. r. recurring.



A

# TREATISE,

Of the Diseases of Children.

---

THE time and attention bestowed on successive impressions of this work, and the ample account of the diseases of childhood now presented, induce the author to hope, that this branch of medicine may be placed upon a respectable footing, and a practice exhibited as familiar and rational as in any other. It is, in this hope, submitted to the notice of the faculty, and especially to gentlemen whose particular province may lead them to bestow a principal attention on the complaints of children. The motives which have induced the writer to extend his plan to another class of readers,

have been sufficiently noticed\*, and it is presumed, may justify such an attempt. He has, indeed, long lamented the very improper method in which the disorders of infants are treated by those who design them the greatest kindness, but whose mistaken opinions too often counteract their benevolent intentions. The laudable affection of the fondest mother frequently becomes a source of manifold injury to her tender offspring. And this is not only the case among the lower class of people, or in situations where medical assistance is procured with difficulty, but even in the metropolis itself, and in the higher ranks of the community, where many prejudices very hurtful to the ease and health of children still prevail.

It is the intelligent Parent therefore, as well as the medical world, to whose notice this work is addressed; and it is hoped, in the estimation of both, no formal apology can be necessary for taking up a subject, that has long called for a thorough investigation.—

\* See the *Preface*.



For the manner in which it has been executed, the author, indeed, again solicits the candor of the public. The most respectable authorities, however, have been consulted, a proper attention been paid to facts, and his best endeavours exerted to obviate the effects of that peculiar veil\* which is said to obscure infantile disorders. A practical arrangement of them has been studied, comprehending likewise the natural consecution of parts, and the order of time in which the complaints severally appear; that some conformity may be every where observed. Regard has also been had to their respective causes and symptoms, tending to elucidate their nature, and render their treatment more obvious than has been generally imagined.

\* There is nothing to which this peculiar obscurity may be referred, but the incapacity of infants to describe their own feelings.—There are, nevertheless, other sources of information, less fallacious sometimes than the more literal descriptions of adults, which in nervous complaints particularly, would tend to perplex the ablest physician if he should always be led by them; and the like necessary discrimination will serve him equally well in the treatment of infants.

To their immediate Diseases, is added an attention to some of the principal Accidents and little Injuries to which the earlier periods of childhood are peculiarly liable ; and though such articles may, indeed, be very unimportant to some readers, it is presumed they will have their use, and may, possibly, prove no small satisfaction to others. And here it may not be improper to observe, that whatever merit former publications may possess, it may, nevertheless, with great propriety be remarked, that they either make a part of some large systematic work, the bulk of which must be foreign from the intentions of a tract of this kind, or else they are far too concise, and have omitted complaints of too much importance to be overlooked, as well as been necessarily silent on many, with which the authors themselves were unacquainted.

It has been generally lamented by writers on these diseases, that this branch of medicine has remained too much uncultivated. And, indeed, till of later years, little more has been attempted than getting rid of the wild prejudices and anile prescriptions of the old writers, which had too often served only  
to

to obscure the true nature of childrens diseases. Another, and a very principal cause of so strange a neglect, has arisen from an idea some people have entertained, that, as medical people can have but a very imperfect knowledge of the complaints of infants, from the inability of children to give any account of them, it is safer to intrust the management of them to old women and nurses; who, at least, are not likely to do mischief by violent remedies, though they may sometimes make use of improper and inadequate ones.

How fatal such a mistake must be, is surely sufficiently obvious; since the destruction of infants is eventually the destruction of adults, of population, wealth, and every thing that can prove useful to society, or add to the strength and grandeur of a kingdom. It may, moreover, be observed, that where mismanagement at this period does not actually destroy the life, it often very essentially impairs the health; the foundation of a future good or bad constitution being frequently laid in a state of infancy. Whereas, if its complaints are prudently managed, the tenderest children, after being, for a time, reduced by various

debilitating complaints, turn out exceedingly healthy ; the resources of infancy, as I shall have frequent occasion to notice, being as astonishing, as they are happily adapted to the great variety of accidents to which it is liable.

It is true, indeed, some laudable attempts have been made of late years to rescue this important trust from being indiscriminately committed to such dangerous hands ; but it is still to be lamented, that even in this liberal age, such attempts have not been attended with all the success they have deserved. It cannot therefore be improper, that something further should be advanced on the subject, in the hope of silencing the weak objections hitherto made against procuring the best advice as early as possible. And this is the more necessary, because those who have the greatest interest in the subject, the most authority on the occasion, and the sincerest affection for their offspring, have frequently the greatest objections to medical assistance, till it is, oftentimes, too late to employ it with effect ; at least, this has, certainly, been too much the case, though it is hoped, the  
prejudice

prejudice is daily declining.—I may, indeed, be very inadequate to the task of obviating it where it may still be in force, but I shall state an argument or two that has always appeared to me of great weight.

A principal objection, taken from the consideration of the incapacity of infants to describe their complaints, has been slightly noticed already, and has been more fully discussed in a treatise written about thirty years since, by Dr. ARMSTRONG. It is aptly remarked by this writer, that the same difficulty occurs in a variety of the most dangerous complaints of adults at every period of life, which confessedly require the greatest assistance; such are attacks of phrenzy, delirium, and some kinds of convulsions: to which may be added, all the disorders of idiots and lunatics. But these have been successfully treated in every age, not excepting even lunacy itself, and the melancholy subject happily restored to society, his family, and himself.

It has likewise been observed, if infants for the reasons above-mentioned are to be excluded the benefit of a physician's advice,



it is difficult to say at what age children may safely be intrusted to his care; since at the age of five or six years, they would frequently mislead the enquirer, who should trust to their own account of their complaints. Their ideas of things are too indistinct to afford us sufficient information, and they accordingly often call sickness at the stomach, pain, and pain, sickness; they will frequently make no reply to general questions, and when they are asked more particularly whether they have any pain in one or another part of the body, they almost constantly answer in the affirmative; though it afterwards frequently turns out they were mistaken.

To this idea I will venture to add, that although infants can give no account of their complaints in the manner we receive information from adults, their diseases are all plainly and sufficiently marked by the countenance, the age, the manifest symptoms, and the faithful account given by the parent, or an intelligent nurse. This I am so confident of, that I never feel more at my ease, in prescribing for any disorders than those of infants, and never succeed with more uniformity, or  
more

more agreeably to the opinion I may have adopted of the seat and nature of the disease. Every distemper may be said, in some sense, to have a language of its own, and it is the business of a physician to be acquainted with it; nor do those of children speak less intelligibly\*.—Limited as is human knowledge in every department, there are yet certain principles and great outlines, as well in physic as in other sciences, with which men of experience are acquainted, that will generally lead them safely between the dangerous extremes of doing too little, or too much; and will carry them successfully, where persons who want those advantages cannot venture to fol-

\* In neither of these sentiments do I stand alone; HARRIS, of whose work SYDENHAM is thought to have spoken so highly, has said the same things—" Incertæ verò  
" diagnofews (quæ multum obtinuit) querela non tam a  
" symptomatum defectu, quàm a præpofterâ ac ineptâ me-  
" dendi ratione ortum fuum duxiffe videtur." (page 8.)  
And at page 3.—" Etenim afferere non verebor morbos  
" illius ætatis generê pauciffimos effe, et gradu tantum-  
" modò differe; imò curationem puerorum multò tutiorem  
" ac faciliorem, quàm virorum ac mulierum." *De Morb. Infant.*

low them.—Let me ask then ; is it Education, is it Observation and long Experience, that can qualify a person for the superintendence of infants, or the treatment of their complaints? Surely all these fall eminently to the share of regular practitioners, to the utter exclusion of nurses and empirics\*.

HAVING briefly stated this matter, it is hoped, with impartiality, and given it the attention its importance demands, I shall next observe, that, as the complaints of infants are more obvious than it has been generally supposed, so their number is comparatively small, their cause uniform†, and the  
the

\* Neque potest scire quomodo morbos curare conveniat, qui unde hi sint ignoret—Pertinet ad rem omnium propriates nosse.—CELsus.

† It may perhaps be objected to this idea, that their various diseases cannot all originate from one and the *same* cause; nor is it my intention here to assert it, though it may be safely advanced in regard to a great number of them. It is to be remarked likewise, that it is the complaints of *early infancy* that are here particularly spoken of; though it is, nevertheless, very evident, that there is a greater *uniformity* also in the *causes* of the several disorders even of older children, than there is in those of adults, which have  
very



the treatment of most of them, simple and certain\*.

FOR the proof of this, as well as in order to establish a rational practice, I shall first consider the Causes and Diagnostics, or specific nature of their complaints, before I attempt to enter upon their Cure.

AND here I shall not attend to their various remote causes, but shall confine myself to a practical consideration of the subject, and briefly point out their obvious occasions and symptoms. And on this account I shall not take notice of all the changes which nature herself induces during the growth of infants, as they pass from one stage of life to another; which are, doubtless, remote causes of some of their complaints. A more minute attention, indeed, would not at all comport with the present intentions, and would lead only to

very often various, and dissimilar remote causes, at different times, and in different habits: E. G. *obstructed catamenia, ascites, &c.*

\* Facillimè inquam in morbos dilabuntur infantes, et nisi aut seriùs aut imperitiùs tractentur, facillimè in sanitatem restituuntur.—HARRIS, *de Morbis acutis Infantum.*

diffuse and uncertain theories, which have been established in one age only to be rejected in the next. In this country\*, at least, such vague theories are now deservedly laid aside, though an æra, perhaps, better calculated for their investigation, than those wherein such subjects were agitated with a zeal proportionate to the writers comparative ignorance of anatomy, and those principles of the animal economy, which can only be established by a close observance of facts.

A principal CAUSE, mentioned both by ancient and modern writers, is the great moisture and laxity of infants; which is necessary, however, in order to the extention of parts, and the rapid growth of young children. This laxity arises from the vast glandular secretion, their glands in general being

\* It is to be lamented, that this is not yet more universally the case elsewhere, even amongst men of letters, as appears from an anonymous latin work, on the diseases of children, published at *Amsterdam* in 1760, replete with obsolete theories, and remote causes of diseases, but possessed of less practical matter than one should have thought any work of so late a date must contain.

much larger in proportion, than those of adults. I might instance in the thymus gland, and particularly in the pancreas and liver. But besides these, there are innumerable glands situate within the mouth, in the gullet, stomach and bowels, which are continually pouring out their contents into the first-passages. This is, doubtless, a wise provision of nature, and I cannot, therefore, think with Dr. ARMSTRONG, that the gastric, or stomach juice, renders the chyle less fit for absorption, for without a due proportion of it, no good chyle could be made; but as we do not strictly follow the dictates of nature in the management of children, as to their food, manner of clothing, sleeping, &c. this abundance of slimy matter may often overload the stomach and bowels, the constant seat of the first complaints in the infant state\*. A second cause arises from the great irritability of the nervous system, and the delicacy

\* Non quod ætas per se sit causa ullius morbi, est enim res naturalis et temporis determinatio, sed quia disponit ad morbos quosdam facilius suscipiendos, si causæ eorum accesserint.—PRIMEROS: *de Morb. Infant.*

of the muscular fibres, whereby the ferous juices do not readily enough return, but remain longer than is consistent with a free circulation through the extreme parts. The quality of the milk, or other food with which infants are nourished, may be accounted a third. In addition to these general causes, may be reckoned the want of exercise\*, which at a more advanced age, happily for us, we are obliged to make use of, and which art, in general, does not duly supply in regard to infants †.

HENCE

\* Exercise is the grand mean of health.—The irrational species are capable of affording it to themselves almost as soon as born; and though infant children are not, they are passive, and can be *exercised*. Nature and instinct point out the expediency of it, and the fond mother who follows only her own inclination, naturally, and insensibly adopts it, and is continually stroking and playing with her little innocent idol, whenever it is awake; and as it grows older, she is led on to give it more exercise, as it can bear it, and according to the satisfaction the infant never fails to manifest on the occasion.—On this head see the *Article of Motion and Rest*, in the *second part* of Vol. II.

† Together with these sources might be noticed another, not mentioned by writers, though not, indeed, an efficient cause

HENCE arise acidities in the first-passages, a constant attendant upon all their early complaints\*. Among the first of which, has been reckoned the retention of the meconium, and the last (which may be termed a disease at all peculiar to infants), is the cutting of the teeth, in which likewise the state of the bowels is very much concerned.

UPON each of the above heads, it may be necessary to make further observations as occasion may offer, in order to take notice of

cause of infantile complaints, but an occasion arising from that constitution the Creator appears to have established, as a law of nature running through the animal race ; I mean, the rank which the several species hold in that scale. For, whatever their apparent comparative strength may be, the more noble and useful amongst them, whether domesticated, or wild, (though, indeed, we cannot say precisely what the latter would be in a perfect state of nature,) seem to be liable to far the greater number of evils.—It is possible, indeed, some philosophers may be disposed to draw very uncharitable inferences from such a position ; but there are others who conceive it to be very justifiable, and analogous to various established facts in the dispensations of providence towards lapsed creatures.

\* SYLVIVS DE LE BOE. HARRIS.



some accidental causes arising from mismanagement, or errors in the *non-naturals*†, as they have been called; especially in regard to the quantity of nourishment administered to infants, and an inattention to the state of their bowels.

THE SYMPTOMS of these first diseases of infants, (by which we also judge of their nature), are chiefly retention and excretion; four belchings; sickness; vomitings; purgings; the nature of the matter thrown off; watching; inquietude; contraction, and sharpness of the features; blueness about the mouth; turning up of the eyes; thirst; heat; the manner of breathing and of crying; retraction of the lower extremities; and pustules, or eruptions, external, or internal. The pulse and urine are less certain marks than they are in older children, and adults. To these may be added, the openness, or firmness of the fontanelles, or moles, and of the sutures; and the relaxation or contraction of the skin in general, and of the scrotum in particular.

† Such are *food, air, exercise*, and the like.

HAVING thus briefly adverted to the general causes and symptoms, I shall now proceed to the consideration of the Disorders themselves; and shall begin with one, hitherto unnoticed by writers, which though very rare, I believe, seems to be the first that can take place after birth, and is a kind of

SYNCOPE, *or* FAINTING.

MANY new-born infants, it is well known, lie, for some time, in a very feeble and uncertain state, with no other sign of animation than a weak pulsation of the heart, and the arteries of the umbilical cord. But I have only in one instance seen any thing at all resembling a syncope or fainting, after the living powers have once prevailed. In this case, the child was born at the instant its mother was moving from her chair into her bed, and in consequence, unfortunately, fell with violence on the floor. It, however, very soon cried, and did not appear to be materially injured; but a day or two afterwards fell into a strange, languid state, very

different from any thing I had been accustomed to see. Stools being procured, it revived, and frequently took plenty of nourishment, but at intervals, sunk into its former languor, breathed very faintly, and died about the sixth day.

BUT, with the following case, which comes precisely under the idea of *syncope*, I have been favoured by the ingenious Mr. HEY, senior Surgeon to the Infirmary at *Leeds*.

HE reports, that an infant, born at the full time, lay moaning and languid for four or five hours, and was then seized with a fainting fit; in which it continued for half an hour. In this state Mr. HEY found it. It had ceased to breathe, except now and then giving a gasp, or sob; and was as pale as a corpse. There was, however, a sensible pulsation of the heart, though feeble and slow; but whether the circulation had been kept up all the time previous to his visit, could not be ascertained.

As soon as Mr. HEY had time to consider the case, he directed the infant's nostrils and temples to be stimulated with the volatile alkali, and when it became capable of swallowing,



lowing, a few drops of the volatile tincture of valerian were administered in a tea-spoonful of water, and repeated at proper intervals: it likewise took a tea-spoonful of castor-oil.

THE child had three other similar attacks in the course of the day, though it had slept composedly between whiles, and sucked at the breast. It had seven more fainting fits in the night, two of which were severe ones; but Mr. HEY was not called again till the next morning. He then observes, that reflecting on the case, and comparing it with that of a man whom he had seen thrown into convulsions by a large bleeding, after having hanged himself, which were cured by the volatile tincture of valerian, given in wine; Mr. HEY pursued the like plan with the child, and administered the drops in a tea-spoonful of a generous white-wine, every two hours. The infant was very sensibly refreshed by the first dose, and had no return of the disorder, except in the slightest degree; and became a very healthy child.

DISCOLOURATION *of* NEW-BORN INFANTS.

AN affection of new-born infants not much more common than the former, is a discolouration of the face and extremities, and sometimes of the whole body, seemingly independent of the circumstances attendant upon the birth. A mere discolouration of the face after laborious deliveries, is, indeed, very common, and gradually disappears, without affording any occasion of alarm. But in the present instance, the parts are very black, and afterwards turn of a leaden-blue colour; sometimes appearing at the instant of the birth, and at others have not been particularly noticed for an hour or two afterwards. In one instance, the discolouration of the face was partial, appearing in spots; the greater number being of the size of small peas, but some larger. In some instances, the discolouration abates a little, and in others not; sometimes it goes intirely off, and returns again, and in that case is of more serious consequence, and commonly dangerous. From  
an

an examination of the parts after death, I have learned, that this recurring blackness depends upon some internal malformation or derangement, (similar, though not precisely the same with one to be noticed under the head of congenite disorders), and for which nothing that I know of can be attempted, but the general remedies for fits; by which it is usually followed when none of the little subsequent means prove effectual.

FROM the result of this recurring blackness, it seems always to be owing to some fixed cause, excited into action by certain circumstances, particularly any sudden agitation of body or mind. In such cases, the disappearance of the discolouration is followed by a return of the tinge of as deep a colour as at first. But in the innoxious kind, though the blackness in some instances, after abating a little, again returns, it never acquires the deep colour it has at first, and when it has once compleatly disappeared, it never returns.

THIS discolouration, therefore, probably depends merely on some spasm affecting the external veins, and interrupting the free return of the blood into the larger vessels. Where

this is the sole cause, the discolouration, howsoever great, is, probably harmless, and would in every case soon abate, and by proper treatment, in a short time entirely disappear. The only necessary means seem to be, to procure stools, (which should be immediately solicited by clysters); to excite vomiting if the infant appears to be sick at the stomach, and to rub, or gently chafe the body and limbs before the fire. But nothing tends to remove the blackness so suddenly or sensibly, as applying a leech or two upon, or near the livid parts; and should therefore always be had recourse to, if the blackness does not very evidently abate in an hour or two after birth, with the help of one or more of the means that have been recommended.

A DISORDER as common as the two foregoing ones are rare, and probably the next in order of time, is

*The RETENTION of the MECONIUM.*

THE MECONIUM is that black, viscid, or tenacious matter, which, it is well known,  
every

every infant parts with by stool, for the two or three first days after it is born, or retains it to its manifest injury.

THE ordinary source of infantile complaints has already been said to originate from something amiss in the first-passages, according to the most ancient opinions\*, and I have long suspected, that a foundation is sometimes laid for them, from not duly attending to an early expulsion of the meconium; which will sometimes firmly adhere to the coats of the bowels, and remain for many days, unaffected even by powerful medicines, as I shall have occasion to remark as I go on: sometimes occasioning dangerous complaints from the birth, and at others, giving rise to more remote evils. I shall only observe in this place, that though it should not be all retained, yet a part will often remain much longer than has been usually imagined, and will come away, perhaps unnoticed, at a late period, where no retention of it has been suspected. Of this I can have no doubt, having been called

\* HIPPOC. CELSUS, ÆGINETA.



to visit infants after the month has been expired, who have been unwell through all that period, for want of having been properly purged, and from whom meconium has still been coming away. A tea-spoonful of castor-oil, given once or more, has soon carried off a great quantity ; upon which all their complaints have disappeared.

THE meconium is, probably, no longer of use after the child is come into the world, unless it be to keep the bowels from collapsing, till they can be replenished with the aliment the child is soon afterwards to receive. Whereas, if it be not soon carried off, it will not only change the quality of the milk, or other food, as it descends into the bowels, but itself also becomes highly acrid, (the greater part of it being bile) and cannot fail to produce indigestion, flatulency, pain, purging or costiveness, and other similar evils : and the meconium is further disposed to this acrid state, on another account, *viz.* from the admixture of atmospheric air. Whilst the infant remains inclosed in the womb, it is secured from all contact of air,  
and

and therefore the alimentary contents remain harmless and bland, though increasing for many months; but it is well known, how soon every secretion or extravasation will become acrid, upon the admission of air into any cavity where it may be lodged. And it is, doubtless, on these accounts, that provident nature has imparted an opening quality to the colostrum, or first milk of all animals; a certain indication to the rational species, to assist the expulsion of this matter, now no longer required. For though a child should even be suckled by its own mother, (in which case, there is, doubtless, less occasion for other assistance) yet we know that nature doth not, in every instance, always fully accomplish her own designs: and it is from some striking instances of the truth of these observations, that I have said so much on this subject, which I have also been the more inclined to, because so many writers have passed it over almost in silence.

I AM aware that all those who esteem medical people to be officious disturbers of nature, have objected to their assistance in this instance, and conclude, that she would do  
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the business much better if left to herself\*. And there are, even some physicians of this opinion, amongst whom I find Dr. BUCHAN, whose abilities and reputation claim particular attention, though he, perhaps, may not be so much engaged amongst very young infants, as those whose peculiar province it is to attend them from the birth. But there can be no general rule without exceptions†, and as, doubtless, many children would do very well without any such assistance, so have I found others who would not, though suckled

\* The *Editors* of the *Critical Review* offered a remark of this kind, upon this part of the work, in its first edition; which, with the one noticed in the preface, are the only critiques I remember to have seen. I have therefore no cause of complaint against any writers of that description, and should not have noticed the present censure, if I were not well satisfied there is no room for such an objection. And, indeed, it is now well known, that the formidable disease, so fatal to new-born children in the *West-Indies*, called the locked-jaw, or jaw-fallen†, is almost always owing either to unwholesome, and confined air, or to a want of purging off the meconium.

† Vix ulla perpetua præcepta medicinalis ars recipit. CÆLUSUS, *Præf. Lib. i. p. 17.*

† See *Titanus*.

by



by the parent herself, of which I shall relate a very striking instance below. On the other hand, I believe, no infant can be essentially injured by constantly assisting in this work, provided the means first made use of be lenient, as they ought always to be.—It is the province of art to superintend nature, and not only to guard against her excesses, but so to watch over her, as to ensure the accomplishment of her intentions, whenever we perfectly comprehend, and can effect them without the risk of doing harm\*. And this intention is as rational, as the practice is successful, there being an evident acidity in the meconium, as I have ascertained by repeated experiments. The red-gum and thrush are also much more rank where the symptoms of acidity are most prevalent, and on the other hand, less commonly take place (as I have for many years observed) where the meconium has been early purged off.

\* A tree will produce fruit in its wild state; but by human culture the tree is often preserved, and its fruit improved, far beyond the course of nature.

For this purpose, amongst others, a new remedy has of late years been recommended, as preferable to any purging medicines whatever†. Mankind has ever delighted in extremes—no sooner has any thing, formerly judged to be hurtful, or even poisonous, been found in certain cases, to be very useful, than it is supposed to be capable of doing every thing, and supersedes all that the wisdom of former ages has proved to be salutary. Hence, some advantages experienced from the use of wine of antimony, in a variety of children's complaints, as far as they arise from one common cause, has induced some people to extol it as a universal remedy. But wherefore give an emetic, calculated to empty the stomach, in order to expel the meconium from the lower bowels\*? It is  
 universally

† Dr. ARMSTRONG, *On the diseases most fatal to infants.*  
 1767.

\* On examining the first-passages of still-born infants, (newly dead) it appears, that the large intestines contain the true meconium; the smaller bowels, only a thin bilious fluid mixed with a little gastric juice. The stomach contains still less, as no bile can enter it but by regurgitation  
 from

universally allowed, and by this writer also, that emetics are not to be administered when the bowels are full, which, in this instance, is precisely the case. It is true, the wine of antimony does not always vomit children, nor will a little matter oftentimes do this, (as I shall have occasion to take notice very soon); it is sometimes, indeed, found to act as a purgative: but if this be the intention, why not adhere to the old, and more certain method, and direct at once such things whose proper operation may be depended upon? Not the stomach, but the bowels, are the natural and safe outlet for most infantile complaints, and a want of due attention to this circumstance has been productive of some evils, which many practitioners, I think, are not sufficiently aware of.

It is very evident, that some gentle purgative is indicated on this occasion, and that

from the duodenum, and the gastric juice is in small quantity, not enough to be brought up by an emetic without violent straining; which I should imagine it can answer no good end to excite by a vomit, the first hour a child comes into the world.

it should be of such a kind as will create as little disturbance as possible, and especially should not be of an offensive, or indigestible nature; though such have been very commonly advised. In general, indeed, a very little matter will suffice; perhaps a little syrup of roses, diluted with some thin gruel, and given occasionally by tea-spoonsful, will mostly answer the end; will also serve to keep the child quiet, and so prevent the nurse from giving it improper food. But if this should fail to procure stools, a watery infusion of rhubarb, (or a tea-spoonful of the wine, diluted as above) will be found preferable to the indigestible oily mixtures in common use\*. In the country, where the above medicines may not be at hand, a little fresh whey and honey will be an excellent substitute†.

THE

\* See HARRIS.

† As I have professed writing for the benefit of the intelligent parent, as well as the assistance of regular practitioners, I shall take this early opportunity of dropping a hint in regard to the *doses* of medicines, as a kind of *general* guide, where the exact dose may not be pointed out. Indeed,

THE objection now made to oily medicines is very much increased, from nurses scarcely ever

deed, it were impossible, in many instances, to prescribe in such a manner as to afford no latitude to the discretion of those who are watching the infant, and are eye-witnesses to all its complaints; and I might rather lead the less intelligent into errors, by attempting to lay down very particular and precise directions.

The rules I shall here offer will chiefly refer to vomits, purges, anodynes, (or composing medicines) and the testaceous powders, termed absorbents.

Every one knows, that the doses of medicines should be adapted to different ages; but these are not in mere arithmetrical or geometrical proportions, and their due relation is only to be ascertained by experience, and in a reference to all the varieties of constitution, and habits.

From the result of daily observation, one may say, for example, to a child of *seven years old*, nearly the *half* of the dose suitable for *adults*; to one of *three years*, the *fourth* part; of *one year*, the *sixth* part; and the *eighth* or *tenth* part to an *infant* in the *mouth*.

An *adult* person may take from fifteen to thirty grains of the *testaceous powders*, and double that quantity of *magnesia*, at a dose, to be repeated several times a day.—From fifteen to thirty grains of *ipecacuanha*, and from one to two, of *emetic tartar*, as a *vomit*. From one to two ounces of *salts*, or of *manna*, and from ten to thirty grains of *jalap*, and from four to ten of *calomel* as a *purge*. From ten to thirty  
drops.



### 32 *Oily Purgatives are always exceptionable,*

ever giving the quantity that is directed, in the course of the first twenty-four hours, as it is always designed; and administering the rest long after the child has begun to suck, or to feed. At this period, mixing with the nourishment, it has a direct tendency to produce indigestion, wind, and the very complaints, which the oils, administered in proper time, were designed to prevent. Not to add, that some kind of oily medicine being the usual purgative on this occasion, is an inducement to parents and nurses to procure a repetition of it, and to administer it whenever an infant happens to be costive during the month; and from whence, the above evils may be frequently induced.

*drops of laudanum, the like number of grains of the extract of the white poppy, and from half an ounce to two ounces of its syrup, as an anodyne.*

From this two-fold direction, parents may, perhaps, attain to a more accurate estimation of the *dose* proper for their children, by means of the experience they may have had of the particular quantity of any of the above medicines usually found sufficient for themselves, whereinfoever that happens to vary from the dose here stated as proper for adults.

BUT

BUT it has been observed, the meconium is not always disposed to come away, even by the assistance of common purgative medicines. Having, therefore, begun with such as the above, if the child has no stool for twelve or fourteen hours after birth, and especially if it should seem to be in pain, a clyster ought to be thrown up; which may be repeated, if necessary, a few hours afterwards. And here I would remark, that in the cases where more powerful remedies are required, scarcely any evacuation will be procured by these gentler means; for, as far as I have seen, wherever I could procure one copious stool by a clyster, or gentle laxative, the rest of the meconium has come away with little, or no further assistance. But as it sometimes happens, that neither clysters nor purgatives have any sufficient effect for several days, very powerful means must then be made use of; there being reason to suspect a suspension of nervous influence. I shall close this subject therefore, with a remarkable instance of this kind, (of which, I have seen many,) as a proof of what powerful remedies may sometimes be required, and how neces-



fary it is to pay some attention to this early complaint of infants.

THE child was born of very healthy parents, (not at all of constipated habits) after a quick, and comparatively easy labour; and appeared to be itself in good health.—To avoid prolixity, I shall only briefly observe, that the child took a little rhubarb an hour or two after it was born, but having had no stool when I saw it the next day, I ordered a clyster to be thrown up. In the evening, the child became drowsy and insensible, and when roused, it moaned, but seemed unable to cry. It continued pretty much in this state, (and at times, seemingly, in great pain, and evidently convulsed) for six days; and was nourished chiefly by a tea-spoon with a little breast-milk, seldom reviving sufficiently to suck.

It had no stools, but such as made only a few spots on the cloths about the size of a shilling, till the sixth day, and those were very small, hard, and lumpy. The next day it had more of this kind, and had not till the day after this, any thing like a proper stool, which was also mixed with hard lumps; but

but on the eleventh day, they were thinner, and on the thirteenth came very freely.—In the course of six and thirty hours, I prescribed two ounces of the common infusion of fenna, two drams of rochelle salts, four grains of jalap, and a grain of calomel; besides purging clysters, and the use of the warm bath. The next day, the child took four grains of ipecacuanha at two doses, and forty drops of the wine of antimony, at four times (in the course of an hour) without any effect; and at another period, six drams of castor-oil, besides several doses of manna\*. Three days after the child got rid of the meconium, the thrush made its appearance; which was slight, but continued above three weeks.

FROM such instances, as well as the remark already offered on the *Locked-jaw* of the *West-*

\* See a similar instance in the chapter on the Croup.—The obvious cause of the inactivity both of emetics and purgatives, which we sometimes meet with in infants, is, probably, the great quantity of mucus with which the first-passages are lined, together with a deficiency of nervous influence, a frequent concomitant of such a state.

### 36 ICTERITIA, or INFANTILE JAUNDICE.

*Indies*, the expediency of having recourse to some safe and effectual means of purging off the meconium seems to be evidently pointed out; more especially when we consider the dangerous complaints, which are said to arise in some of the hospitals in *Paris* from an undue retention of this viscid matter, as will be further noticed in another place.

### ICTERITIA, or INFANTILE JAUNDICE.

THE Jaundice of infants seems always to have been improperly conceived of. Those who have written only on children's diseases, have usually passed it over in silence, whilst others have considered it always as rather a serious complaint, and have prescribed as for the jaundice of adults. On the other hand, parents and nurses have usually accounted the common yellowness that appears about the third day after birth, (termed by some the yellow-gum) as the true jaundice. Neither of these opinions seems to me to be just; for the latter of these appearances requires no attention at all, and though infants are not very  
often

often troubled with the true jaundice like adults, (unless infected by the breast-milk) they nevertheless are liable to slighter affections of that kind which claim some attention. These are easily distinguished from the common yellowness, mentioned above, by the tunica albuginea, or white of the eyes, being always very yellow; but the nails are not tinged, as in the jaundice of adults\*, though it is probable they usually would be, if the complaint were long neglected, and the child suffered to be costive. I have waited some days to see if the yellowness would go off of itself, as the usual tinge does; but it has always increased rather than diminished. It arises from viscid matter obstructing the gall-ducts, which open into the duodenum, and therefore requires a little emetic. Wine of antimony is a very proper one on this occasion, as it may likewise procure two or three stools; but as children in this complaint are not easily made to vomit, should the wine fail, I would advise three or four grains of

\* See the *note* in the next page.

### 38 ICTERITIA, or INFANTILE JAUNDICE.

the powder of ipecacuanha, which is more certain in its operation; and the next day give four or five grains of rhubarb. Should the symptoms continue, the emetic ought to be repeated after two or three days, and rhubarb be given about every other day, till the yellowness disappears; which, under this treatment, never continues more than ten or twelve days, unless the infant be very costive, or the stools are of a very pale colour; which is but rarely the case. In such instances, some infants are found to have a true jaundice, and require some saponaceous medicines, such as the aquakali, together with daily frictions of the stomach and belly, and the use of the warm-bath.

WOMEN long afflicted with jaundice, during any part of their pregnancy, and even actually brought to bed in that state, do not infect their children, unless they also suckle them\*;  
but,

\* I have myself never met with such an instance; but Mr. BAUMES, who has been very attentive to the disease, once saw an infant so infected from the womb: but in this case, the child died very soon in a very diseased state, the internal part of the liver being in a state of suppuration.

Other



but, from some striking instances, I have found that suckling in that state is capable of communicating the true jaundice to a great degree, and that it will not be cured, but by the recovery of the mother or nurse, or by the infant being weaned, as well as properly treated.

THE true jaundice, distinguished by the skin being every where discoloured, as well as the whites of the eyes, seems to be much more common among new-born infants in *France*, than in this country; as appears by a memoir

Other Instances are given, but they are not unexceptionable. Vide, A. N. *Curios. Dec. 1. A. vj. Obs. 241. Dec. iij. A. ij. Obs. 40. Fr. Delaboe Silvius, Prax. Med. Lib. j. Cap. 46, N°. xi. p. 302. Theod. Kerkring, Spicil. Obs. 57, p. 118.* I have, indeed, lately seen an infant (the mother of which, however, was not icteric) whose finger nails were, at the birth, of as deep a yellow as in any icteric adult, and very sensibly from a tinge underneath them; but those of the toes were not at all discoloured, nor had the infant any other symptom of jaundice. It, indeed, brought up, by puking, a considerable quantity of yellow matter, apparently bile, very soon after it was born; but the tinge of the nails disappeared the next day, and the infant throve very well.

written by Mr. BAUMES, and to which a prize-medal of the *Faculty of Medicine in Paris* has been adjudged.

IN that work the various causes and nature of the disease are distinguished; and a correspondent treatment pointed out with great accuracy and judgment. Throughout the tract there seems also to be much ingenious and plausible theory; though I cannot agree with that able physician in supposing the jaundice to be occasioned by the retention of the meconium, otherwise than from this viscid matter sometimes obstructing the orifice of the biliary ducts. For in the several instances I have met with of the most obstinate retention of that secretion, there has not been the least disposition to jaundice; nor can I conceive, that any part of the meconium is usually absorbed in icteric cases, as Mr. BAUMES has imagined: neither does such an incident appear to be necessary in order to account for the frequency of the disease in that kingdom, or elsewhere.

As to the treatment, under the different circumstances there described, I meet with nothing that militates against the more general  
account



account I have given of this disease, or the treatment adapted to it, under the form wherein it appears in this country.

ERYSIPELAS INFANTILE.

IN a former edition it was observed, that this complaint, (noticed under the term, anomalous inflammation), did not appear to have been distinctly noticed by any preceding writer. But I have since found that HOFFMAN, though he makes no mention of any such complaint in his *Morbi Infantum*, has the following intimation in his chapter *de Febre Erysipelacea\**, and it should therefore seem, was acquainted with that species of the disease which appears in the more precise form of erysipelas; but which he had noticed only in the region of the belly.—“ Umbilicalem  
“ regionem in infantibus frequentius infestat,  
“ ac inde per abdomen spargitur, cum gravi-  
“ bus pathematibus, funesto ut plurimum  
“ eventu.” The FRENCH have likewise spo-

\* Sec. i. Cap. 13.

ken lately of a somewhat similar affection, combined with different endemic complaints infecting crowded hospitals: the disease, however, does not appear to have been any where noticed in its simple and genuine form. If this be the case (in respect to the form in which it now appears) it seems necessary to give a name to the disease, which it is apprehended, may with propriety be termed, *Erysipelas Infantile*.

It is a very dangerous species of the spurious, or erysipelatous inflammation, which I have not often met with, but in lying-in hospitals. The ordinary time of its attack being a few days after birth, it was remarked in a former edition, that it was thought never to appear later than the month; but I have lately seen it in a child of two months old, and the late Dr. BROMFIELD informed me, that he had noticed it in a child much older. It seizes the most robust, as well as delicate children, and in an instantaneous manner; the progress is rapid; the skin turns of a purplish hue; and soon becomes exceedingly hard.

THE milder species of it appears often on the fingers and hands, or the feet and ankles,  
and

and sometimes upon, or near the joints, forming matter in a very short time. The more violent kind is generally seated about the pubis, and extends upwards on the belly, and down the thighs and legs; though sometimes it begins in the neck, and is equally fatal. The fact, indeed, seems to be, that it is always more dangerous when it seizes, or spreads to any parts of the body, than when confined to the extremities. The swelling is but moderate, but after becoming hard, the parts turn purple, livid, and very often mortify, especially in boys, when it falls on the scrotum; the penis swells, and the prepuce then puts on that kind of emphysematous, or windy appearance, which it has when a stone is sticking in the passage; or in the anasarca of the scrotum.

UPON examining several bodies after death, the contents of the belly have frequently been found glued together, and their surface covered with inflammatory exudation, exactly similar to that found in women who have died of puerperal fever. In males, the tunicæ vaginales have been sometimes filled with matter, which has evidently made its way from the  
cavity

cavity of the abdomen, and accounts for the appearances of the organs of generation just now described: in females, the labia pudendi are affected in like manner, the pus having forced a passage through the abdominal rings.

VARIOUS means were made use of at the *British Lying-in Hospital* without success; though the progress of the inflammation seemed to be checked for a while by saturnine fomentations and poultices, applied on the very first appearance of the inflammation; but it soon spread, and a mortification presently came on, or where matter had been formed, the tender infant sunk under the discharge. It is now several years since I proposed making trial of the bark, to which sometimes a little *confectio aromatica* has been added: from which period several have recovered. Some time after this, Dr. GARTHSHORE, then one of the physicians in ordinary, directed the application of linen compresses wrung out of camphorated spirit, in the place of the compound water of acitated litharge, which has proved more successful in checking the inflammation in several instances; nevertheless, the greater number of infants attacked  
with

with this disorder, still sink under its violence, and many of them in a very few days.

SINCE the first edition of this tract, the same disease, as I apprehend, has appeared once in a new form, in the *British Lying-in Hospital*. In this instance, the infant not only came into the world with several hard, and sub-lived inflammatory patches, and ichorous vesications about the belly and thighs, but other spots were already actually in a state of mortification. An eschar soon spread to near three inches in length upon the spine of the tibia, and other smaller ones appeared about the legs, and on several of the toes and fingers. The parents of the child appeared to enjoy good health, and the mother had plenty of good milk, which her infant was fortunately able to take in great quantity. The child was hereby duly nourished; and taking likewise every day, from the time the mortification began to spread, from four to six ounces of a strong decoction of the bark, it was supported under an excessive discharge of matter, through this tedious disease. The parts affected were at the same time frequently fomented,



mented, and were sometimes wrapped up in warm cataplasms, and at others, dressed with theriaca, as the sloughs became loose; and were covered with compresses wrung out of camphorated spirit. The infant, however, lost two joints of one of its fingers, and the first of another; all the other fingers, and the toes, contrary to expectation, throwing off the mortified parts, were recovered entirely, and the child being sent out of the hospital perfectly well, I had the satisfaction of seeing it in good health, several months afterwards.

FROM the good effects attending a very copious use of the bark, in this and some subsequent instances, there is further room to hope, that we may be yet more successful in the treatment of this formidable disease; which has not, however, appeared so frequently at the hospital for the last six or seven years, as in former times.

A REMARKABLE one however, which took place there after the former edition went to press, may further serve to confirm the hope above expressed. In this, which I conceive  
to



to be the same kind of disease, though in a rarer form, the infant was attacked about ten days after birth. Instead of the usual appearance, the hands and feet, and more especially the fingers and toes, were uncommonly red, felt hot, and were considerably swelled. On several parts of the fingers were also very small white spots, as if dusted with powder, and on others, larger ones, with an extravasation under the skin, resembling the thin matter of the cutaneous whitlow. These, together with the redness and tumour increased for two or three days, but the parts did not seem to be very painful. There were also some copper-coloured spots about the fore-arms and forehead, resembling venereal blotches; but there were no precise marks of that disease. In a little time, these dark coloured parts were elevated by a like extravasation, and then dried off in scabs. The cuticle of the hands and feet also peeled off, leaving the parts very red, but neither swollen nor tender. The infant took plentifully of the decoct. cortic. and confectio aromatica, and continuing to take the breast freely, left the hospital at

at the age of three weeks, in perfect health, with only a little scurfiness on the eye-brows. —No spiritous embrocation was applied to the parts.

## OZÆNA INFANTILIS.

I HAVE given this name to an uncommon discharge from the nostrils, taking place in the month, usually in the first or second week after birth. The discharge is very different, as well as much more abundant than that arising from taking cold, and is truly purulent in the beginning, and afterwards faeculent. Children who are thus affected, always appear weakly, and as if unwell, though without any precise complaint, and are constantly incommoded from the stoppage of the head, especially in their sleep; during which they breathe with difficulty. It generally continues for several weeks, and upon its going off, some children have been otherwise unwell, and such as have been brought up by hand, have been dangerously ill in their bowels;

bowels ; but whether in consequence of the ceasing of the discharge from the nose, I have not had sufficient experience to determine.

It will be proper to keep the body cool and open, or if the infant be purged, or languid, to administer absorbents and cordials ; to attend to the nurse's diet if the child be suckled, and to keep a little blister open on its head, or on the nape of the neck.

I HAD attained no further knowledge of this complaint from the little that I had seen of it, and had therefore drawn up only an imperfect account of it, with a view to this edition, when Dr. DENMAN obliged the public with a more ample and formidable detail of the disease ; which has fallen more frequently in his way, than it seems to have done in any other practitioner's. Previous to this, I had heard nothing of the complaint from any medical man, nor had it, I believe, been noticed by any writer. For my own part, therefore, I felt much gratified by Dr. DENMAN's account, which it would be unjust to the readers of this work to withhold.

Dr. DENMAN remarks, that this disease seemed to be new in its manner, though not

in its kind, at the time of its first making its appearance, which was frequent in the year 1790; in the June of which year it was that I also first saw it, and I think never since.

AFTER mentioning the little varieties noticed in this discharge, and the most formidable symptom of the disease, the difficulty of breathing through the nose, he observes, that this was not constant, and that when free from it, children appeared to be in no danger; that the difficulty of breathing was at other times so great as to require an attendant to watch a child sleeping and waking, in order to open its mouth as often as it might be requisite.

Dr. DENMAN further notices a singular purple streak at the verge of the eye-lids; which he afterwards considered in a manner pathognomonic of the disease. He describes also a general fulness about the throat and neck externally, taking place soon after the commencement of the complaint; which he seems to date from the appearance of the purulent discharge from the nose. Whether this last mentioned symptom, in the malignant species of ozæna which he describes,  
may

may not be regarded as arising from the like cause with the acrid discharge from this part, which so often accompanies the true angina maligna, and the latter be considered as the true disease, time may perhaps determine, and point out the proper treatment; but with what success in such tender and languid subjects, must be in the meanwhile very uncertain.

Dr. DENMAN goes on to remark, that, "when these symptoms had continued for some days, according to the strength of the patient and degree of the disease, children began to swallow with difficulty, became pale and languid, and that upon looking into the throat, the tonsils were found tumified, and of a dark red colour, with ash-coloured specks upon them, and in some there were extensive ulcerations. The parts on which blisters had been applied in the beginning of the disease, and which had been apparently healed, often sphacelated towards the conclusion."

"THE infants (he reports) gradually declined in their strength, and had a particular catch in respiration, as if the velum pendulum palati were elongated. They were un-



able to suck, though not universally ; swallowed with difficulty whatever was given in a spoon ; and died in convulsions, or with all the marks of great debility, though not on any particular day of the disease.”

Dr. DENMAN observes, that in the course of eight months he had attended eight children in this disorder, six of whom died ; that the body of one of them was afterwards opened by the late Mr. HUNTER and Mr. HOME, but that nothing was discovered, except that the membrane lining the nose was of a dark red colour, and its blood vessels more turgid than ordinary.

IN regard to the curative means made use of by Dr. DENMAN, and other physicians called into consultation, he speaks thus : “ the antimonial powder was given in small doses, in the beginning, which commonly acted as an emetic ; or saline mixtures with testaceous powder, magnesia, or small quantities of rhubarb. When infants became weak, mixtures with the pulv. contrayerv. comp. or confect. aromat. in a decoction of the bark, and other cordials were frequently given, and in full doses. Clysters, composed chiefly of bark, were



were administered every four or six hours. The wet-nurses also took bark, and were directed to live on a generous diet. Great care was taken to keep the passages of the nostrils clear, and to prevent the humour flowing from them from being swallowed, by soliciting it outwardly, and by a favourable position of the child. The feet and legs were fomented; and emollient, or gently stimulating cataplasms afterwards applied. Blisters were also applied, till their propensity to become gangrenous was discovered. The nose and throat were occasionally fomented. In one case, I gave the conf. aromat. with decoction of the bark the moment the disease appeared; but the child died."

ALTHOUGH the disease I have myself seen agrees in many particulars with that described by Dr. DENMAN, it has been by no means so severe; neither the languor being so great, nor was there any disposition to gangrene upon the application of blisters: I therefore experienced no fatality. It seems, nevertheless, *ex post facto*, that by considering the disease too much as a new one, the obviously dangerous symptom, as I have hinted, may,

possibly, have been somewhat over-looked, viz, the malignant forenefs of the throat.—But I throw out this only as a conjecture. As Dr. DENMAN, however; gives no precise account of the doses of medicines, but only observes, that the bark and cordials were administered frequently, and in full doses, it may be suspected, that the bark might, perhaps, have been given more liberally; it being always necessary to administer this medicine very copiously, whenever there is a malignant tendency. I have known an infant, just born, take six ounces of the decoction in twenty-four hours, which it continued to do for several successive days, without its disagreeing in any respect; nor is there any reason to think the bark in substance anywise hazardous, where the nature of the disease may demand the use of it,

## INWARD-FITS,

ANY derangement of the first-passages is capable of giving rise to various complaints, among which, that of inward-fits, has lately been

# SUPPLEMENT

TO THE

CHAPTER *on the* OZÆNA INFANTILIS,

Page 54.

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A FEW days after this work had passed the printer's hands, the author learned in a consultation with Dr. DENMAN, that by a fortunate occurrence, he had lately discovered the true nature of this disease, and in consequence, happily adopted a remedy that has proved a certain cure for it.

THE true source appears to be a defluxion and inflammation over all that extent of *Schneider's* membrane lining the antrum *Highborianum*, posteriour nostrils and contiguous parts. Hence, the copious secretion of purulent matter irritates the trachea, and produces that spasm, and croaking noise, with recurring sense of suffocation, so uniformly observed in this disease. By descending into the stomach and bowels, it disorders these parts ; and if not  
very

very soon properly treated, induces such general disease as presently debilitates, and at an uncertain, but generally an early period, carries off the little patient, in the manner that has been already described.

FROM this account of the disorder, an attention to the state of the bowels, as I intimated in the first instance I had seen of it, is the manifest indication; but with this further light thrown upon it by Dr. DENMAN, that keeping them very open, so as to prevent the lodgment of the matter falling into them, is the grand mean of cure: there being much less to be effected by absorbents and ant-acids to correct the constant sourness, and ill-condition of the stools, than by carrying them off speedily and frequently.

To this end, one or more tea-spoonsful of castor-oil should be given every day, so as to procure three or four motions daily. If a child should be weakened by this mean, which will rarely be the case, some cordial medicine should be occasionally interposed; or should this prove insufficient to support the infant, the purgative must be somewhat abated. If a convulsion fit should supervene, as I have known  
in

In one instance, clysters, and the usual anti-spasmodics should be administered, and especially the cordial ; which breaking off wind from the stomach, and giving tone to the bowels, becomes a useful remedy in this case.

UNDER such treatment, the infantile ozæna has been found to yield in the course of two or three weeks ; some purging medicine being continued as long as the discharge, or difficulty of breathing shall remain.

It is necessary only to add to this brief account, that though this disorder had never till very lately been met with after the month, I have seen one instance of it in an infant of a quarter old ; who recovered, like every other, since an early recourse has been had to a free use of purgative medicines, which prevents the lodgment of the matter in the first-passages, where it may be said to operate as a poison.





been taken notice of by some medical people, but I think scarcely deserves the name of a disease. It demands attention, however, because so much has been said about it to expose the fond parent to continual apprehensions, lest this subtle disease should be insensibly at work, and making way for more severe, and outward convulsions.

THIS complaint may take place at any period of early infancy, and is said to be more dangerous the younger the infant may be. A constant symptom in this kind of fit, as it is called, is the infant's little mouth being drawn into a smile; which whoever has noticed must have beheld it with pleasure. And if the complaint extends no further than this smiling, which is generally in its sleep, it arises merely from a little wind, and is certainly harmless, because the wind in this case is not really confined; and therefore an immediate recourse to pukes or purges, is more likely to do harm, by straining the stomach, or by relaxing the bowels, than to do any good. Every body is acquainted with the effects of different degrees of irritation of the nerves, from the sensation produced by tick-

ling with a feather, to that of a hard gripe, or a violent stroke. The first may be said to be pleasing; and such, I doubt not, is the stimulus in question on the nervous coat of the stomach of little infants, and therefore produces so agreeable a smile, that I could never consider it any more as an indication of mischief than of pain. Indeed, I know of no complaint that ought to be termed inward-fits; and I mention this, because nurses are continually talking to us about them, when children are perfectly well, and often give the fond parent needless distress, as well as many an unpleasant medicine to the child\*. They are at the same time treating the true convulsion, whilst slight, in the same way, being led into the error by the idea of inward-fits; a term they are ever using, but have no precise ideas of, nor do any two of them mean the same thing by it. It were therefore

\* It were certainly a good rule, to administer no medicine to infants for such symptoms as do not indicate some real complaint, unless where experience proves that such symptoms neglected are apt to forerun some well known disease.

better,

better, perhaps, the term were altogether abolished; as the child is either evidently convulsed, or has no kind of fit, at least none for which any remedy can be offered.—Infants, as well as adults, do sometimes, indeed, die suddenly without any manifest convulsion. But this more frequently happens after over-feeding, and arises from a spasm of the stomach, (of which I shall treat at large, in the chapter on true convulsions;) or sometimes of the heart or lungs; and infants may then be said to die of inward-fits, there being no external convulsion; but this is, by no means, the kind of affection usually understood by that term.—If the infant should sleep too long, and this smile should often return, the infant may be taken up, gently tapped on the back, and its stomach and belly be well rubbed by the fire; which is all that can be necessary. This gentle exercise will bring a little wind from its stomach, and the child will go to sleep again quietly.

THIS complaint, however, is largely treated of by some writers, and Dr. ARMSTRONG wishes to give a few drops of the wine of antimony; but it is very apparent, that when  
he

he considers it as worthy of more attention than I have just now advised, it is either a true convulsion, in which the eyes are distorted, and the mouth is discomposed, instead of putting on a smile, or else he is prescribing for another disease under the name of inward-fits, which former writers have treated under the head of disorders arising from costiveness and wind. But if this little turn of the features should arise from constant over-feeding, it were endless to administer emetics; the cause of the complaint is obvious, and upon the removal of it the remedy must rest.

SUCH has ever been my opinion of this much-talked-of complaint; and indeed, I have not to this day, after a good deal of attention to infants, seen any thing sufficient to induce me to alter it; or I would in this edition, have cheerfully retracted the preceding observations. As I wish, however, to afford all the information I can on every complaint, I have to observe, that it is conceived by some gentlemen of great respectability and experience, that though the term, inward-fits, has been often misapplied, there is really  
such

such a complaint, and that it generally proves fatal. Besides a little blueness of the lips, and slight turning up of the eyes, often noticed by nurses, this complaint is described to me as attended with a peculiar sound of the voice (somewhat like the croup) and a very quick breathing, at intervals; and is supposed to arise from a spasm of the stomach, lungs, or other vital organ.—A spasm I have indeed too frequently seen\*, but certainly very different from that usually known by inward-fits.

THESE symptoms are said frequently to attack the child in its sleep; and in their commencement will go off upon taking it up from its cradle. They are likewise observed to be induced by sucking or feeding, and to be increased upon any little exertion of body, or transient surprise†, and in this manner to recur

\* See page 57.

† WHILE this sheet was actually in the printer's hands, I met with a second instance (a few weeks only after the former) attended with all the precise symptoms described above. The first case I treated as chronical croup, and the child soon recovered: the second, now under the like treatment, was instantly benefited by it. Should this infant



recur for a length of time, before they become alarming. The remedies proposed for the cure of this complaint are an emetic, on the first attack, and afterwards volatiles and fetids; but, as it has been observed, very seldom to good effect.

IN regard to costiveness and wind, which have been said to be the parent of what nurses commonly term inward-fits, as they do not always arise from one and the same cause, and are productive of other complaints than those above mentioned, I shall consider them by themselves; which, it is presumed, will be pursuing a more rational plan, than adhering to a term obscure in itself, and indicative of a disease not well defined, and which therefore may tend to mislead the generality of readers.

infant get rid of all its complaints in a few weeks, and neither of the children afterwards die suddenly in a fit, in the manner others are said to have done, I must still retain my opinion of inward-fits; or should it turn out otherwise, I shall, as decidedly, retract it. My duty, in the mean time, to the public, demands this explicit statement of facts, from which the medical reader will induce such inferences as may best coincide with his own experience.



DISORDERS *arising from* COSTIVENESS *and* WIND.

IT has been usual with ancient writers, when conciseness and accuracy were not so much considered as in the present day, to treat of costiveness and wind as distinct heads of complaint; and for the reasons aforementioned, as well as from this little tract being calculated for general usefulness, and not merely for medical readers, it may not be altogether improper to comply with this custom.

COSTIVENESS is either constitutional, or accidental, which ought always to be distinguished, the former being oftentimes harmless; and, indeed, children of such a habit of body are frequently the most thriving. If the mother should be very constipated, her children generally are so; and such a disposition, (whilst they continue in health) ought not, I believe, to be forcibly counteracted, though it will be prudent carefully to watch it. And this will be especially necessary, in the case of children who are subject to fits; fine lusty infants being often seized with violent convulsions, without any other apparent

rent cause than a naturally costive state of the bowels, and as uniformly recovered from the fits, merely by procuring stools, and breaking off the wind. And this disposition to fits has taken place long before the ordinary period of teething, and has continued till children have been a twelve-month old; at which time the solids, and especially the nervous system, have appeared to get stronger. In such habits, a quarter of an ounce of manna, or the like quantity of the syrup of roses, may be put into any liquid, and as much of it given by tea-spoonsful, as shall open the belly. Or should these prove insufficient, a tea-spoonful of castor-oil\*, or from five to ten drops of the compound tincture of aloes, may be taken two or three times a week: or a few grains of senna-powder, with, or without a dust of grated nutmeg, or cloves. And here it may not be useless to observe, that rhubarb will not be a fit purgative, though

\* Oil of castor may be rendered very acceptable to children, if rubbed down with mucilage of gum arabic, and a little manna, and afterwards made into a draught or mixture, adding a little dill, or rose-water, with a few drops also of the compound spirit of ammonia, where such a warm ingredient may be proper.

it be joined with magnesia, which will not sufficiently counteract its restridency; howsoever proper in certain cases. Another reason for objecting to this compound, is that of its being the almost constant prescription of nurses, during the month, whose indiscriminate use of it is sometimes prejudicial; rhubarb, or magnesia, alone, as the child is naturally costive, or otherwise, generally answering all the purpose intended, especially for very young infants; whilst the union makes an unnecessary addition to the bulk of the medicine, which should always be avoided. A few grains of magnesia in a spoonful of dill, or common water, and sweetened with a little manna, or syrup of roses, forms a much neater medicine, and in costive habits, which usually abound with acidity, answers very well in early infancy.

BUT if the child be otherwise in health, it has been said, it is, in general, inadvisable to do much to counteract the natural habit of body. I have formerly, even during the month, directed manna, to the dose of half an ounce at a time, to very little purpose, unless it was almost daily repeated, and have at  
other

other times given from three to five grains of jalap; till I learned, that there are some constitutions, even in infants, where the bowels cannot be kept open without a daily exhibition of some purgative medicine, and that many such children are as well left to themselves, or at least, require only to be watched. If a stool should be wanted, however, a suppository (or dry-clyster) made of a little slip of paper, or linen-cloth, twisted up, and well moistened with oil, may be very easily introduced, and will generally answer the purpose: or should this fail, a bit of Castile soap, mallow-root, or red beet, may be introduced in like manner. These means will be assisted, and a costive habit relieved, by rubbing the stomach and bowels frequently every day with a warm hand.

SHOULD such a costive and windy state of the bowels produce griping pains, which may be known by the drawing up of the legs, or of the scrotum, and a certain manner of crying, it will be proper to apply external warmth to the stomach and bowels, by means of heated bran, or chamomile flowers, put into a soft flannel-bag, which will both tend to abate the pain, and assist the operation of  
the

the laxative. Or should the costiveness be accidental, it must speedily be remedied; and if the occasion of it be an improper food, which is very often the case, the food must immediately be changed. If the child be not usually costive, rhubarb\*, it has been said, is often the best purgative, as it strengthens the bowels afterwards, infants being much more subject to an over-purging than to almost any other complaint, especially if brought up by hand. It sometimes happens, however, that much more powerful medicines than rhubarb may be required, whether the child be naturally costive, or not; and in such cases, much caution is necessary on the part of parents and nurses: for, where a proper dose of senna-tea has proved ineffec-

\* Some writers have in this case recommended oil, and particularly the *French*, who administer oil of almonds to infants much too frequently. Mr. LE FEBURE DE VILLEBRUNE therefore, in a note to the translation with which he has honoured a former edition of this work, testifies his preference to oils; but I must beg leave, in turn, to differ from him; being persuaded, there are few cases beside disorders of the chest, in which any kind of unctuous oil, but that of castor, will not be injurious to young infants, and particularly in affections of the first-passages.



tual, it is surprizing what large doses even of rough purges have been given in vain, or sometimes to the injury of the child. On such occasions, I would rather advise a recourse to clysters, and especially those made of succotorine aloes. From five to twenty grains, according to the age of the infant, dissolved in boiled milk, will rarely, if ever, fail of procuring a stool, and will often procure two or three, especially if preceded by the exhibition of a purge. But even drastic clysters should be administered with caution, and ought not to be very often repeated, especially to very young children; though less hazardous, in every view, than the frequent repetition of purges of a similar kind, and when used intermediately become expedient and beneficial.

It may be necessary here to observe, that purgatives for infants ought generally to be made potentially warm, by the addition of a little ginger, pounded cardamom-seed, carraway-tea, or dill-water; which is of more consequence than is usually apprehended. This indeed, is not equally necessary in costive habits; but in others, I have known a careful  
attention



attention to this circumstance alone, happily suppress complaints in the bowels, which had long continued obstinate, though, in other respects, properly treated. On this account, averse as I am to precise formulæ, I venture to recommend the following as an excellent general remedy, especially as infants are pleased with it, and it will keep for a great length of time.

TAKE of rhubarb fifteen grains ; half a dram of magnesia ; sweet fennel, and dill waters, of each six drams ; half an ounce of syrup of roses, and ten, or fifteen drops of the compound spirit of ammonia : of this, one, two, or three tea-spoonsful, according to the age of the infant, may be given, two or three times a day.

As there is usually too much acidity in the first-passages in costive and windy habits, a little magnesia may be given for a few days after the costiveness has been removed ; and if the child be suckled, the nurse's diet must be attended to. If any flatulency should still remain, (which will not often be the case if it has arisen merely from constipation) a little dill-water, is a very safe and gentle carmina-

tive; or should one more powerful be expedient, the fluid parts of the above mentioned mixture may be given, without shaking up the vial. But if the flatulency be an attendant upon a lax state of the bowels and indigestion, its remedy will consist in the removal of those complaints, which will be noticed in their place.

It may be expected, however, that a word or two more should be said in regard to wind, which may likewise sometimes prove a real complaint, though it should not happen to be so confined as actually to become an occasion of fits. It is usually, indeed, but a mere symptom of some preceding or attending complaint; nor are its troublesome effects either occasioned or increased by air taken in with the food, as many people have imagined; atmospheric air being essentially different from that produced by indigestion, whether owing to the weakness of the stomach, as it is called, or the improper quality or quantity of the food taken into it. It may however, in conjunction with other causes, prove a source of many complaints, and create watchfulness, startings, hiccoughs, vomitings, and even convulsions, if not timely attended to, especially if the infant be costive. A principal remedy in that case will consist in keeping the bowels open.

THE only instances that I remember to have met with of wind proving of much consequence, when not preceded by other complaints, have been in new-born and very lusty infants, whose mothers have also been peculiarly distressed by affections of that kind. This is, indeed, a somewhat anile way of speaking, but it states the precise fact; and one instance of an infant suffering in this way was so remarkable, that it may be worth noticing in this place.

IN this case, the meconium began to pass off soon after birth, but not without repeated clysters, purgatives, and the warm-bath, and was peculiarly viscid, as well as in vast quantity. The infant, the meanwhile, appeared for several days likely to be strangled, and was black in the face, merely through the abundance of wind in the first-passages; though it was breaking off both by the mouth and the bowels, and by that peculiar, and very loud noise, when it came upwards, observed oftentimes in the hysterical spasm of adults, and continuing, with only short intervals, for several hours together, so that the infant was often thought to be dying. The whole face, except the nose, became exceedingly swelled, so that the infant could scarcely open its eyes,

though without any discolouration of the skin; being probably owing to wind diffused through the cellular membrane; the tumor subsiding immediately upon getting rid of the wind from the stomach and bowels.

These symptoms, however, yielded to carminative juleps, and purging medicines, (which is all that mere windy complaints usually require); and the infant after the meconium was all come away, was freed from every complaint, without any further semblance of fits, which had before been frequently apprehended.

#### WATCHING, *or* WANT of SLEEP.

THIS is frequently a symptom of the foregoing complaints, and in that case, may be removed by opening the belly, and afterwards administering some pleasant and carminative pearl-julep\*; which will then, frequently act like

\* This remedy has been so called from having been formerly composed of prepared pearls, and the name is here retained

like an opiate † by restoring rest. Sometimes, indeed, this has succeeded so well, when given in large doses, that I have been suspected of having really given some sleeping medicine; which would in these cases prove exceedingly hurtful, as the watchfulness is generally a mere symptom, and not a disease; though when very obstinate, it is sometimes the harbinger of epilepsy, and then requires purgative medicines. I cannot, therefore, avoid taking notice in this place, of the destructive custom amongst wet-nurses, of giving opiates, in one

retained because familiar to some readers; but the pearls having no virtue peculiar to them, are very seldom made use of; the julep being now prepared from the common shell-powders, or testacea.—As this term (or testaceous powders) occurs very frequently in this work, it may not be amiss to observe, that testacea consist of prepared oyster-shells, crabs claws, crabs eyes, pearls, and red coral; which differ but little from each other. They are likewise denominated absorbents, in which latter class, are also ranked prepared chalk, and magnesia; the former is more powerful and binding than any of the testacea, and the latter is, on the other hand, moderately opening.—Of either of them, from three to ten grains, may be given at a dose, three or four times a day.

† See HARRIS *De Morbis acutis Infantum*.



form or other; which, however useful on proper occasions, are sure to act as a poison, and sometimes not a very slow one, when injudiciously administered, and never can be more so, than in a costive state of the bowels.

WATCHINGS may arise from worms, purging, or gripings, whether from acrid breast-milk, or other food, and from indigestion, as well as from every thing capable of producing pain; each of which probable causes should be very attentively inquired into before we prescribe for the complaint, and will therefore be distinctly considered in their proper place. The usual source may, indeed, be said to be some default in the first-passages, and in very young infants is frequently owing to costiveness. I shall only observe further, if watchfulness be confined only to the night, it is probable the child sleeps too long in the day-time, which may be remedied by keeping it moving, and playing with it throughout the day; of which little matters further notice will be taken in the part devoted to the *Management of Infants*.



## APHTHÆ, or THRUSH.

HAVING considered these lighter early complaints, I proceed to others which equally owe their origin to some affection of the alimentary canal, or first-passages, and are oftentimes of a more serious nature.

ONE of the most important of these disorders, is the Thrush, a complaint that, probably, depends not a little upon the different natural habit of infants, as well as upon their management, particularly in regard to food, air, and the state of their bowels. This seems to be the case, inasmuch as the thrush is sometimes found to seize every infant in certain families, in whatsoever way the children may be managed; as well as to occur occasionally in others, upon a want of proper attention to the state of the alimentary canal, where a great number of other children, properly watched, have uniformly escaped it. Instances of the latter kind may have been noticed, where the mother happening to be ill, the whole attention of the family has been thereby engaged; or, where one infant has been put out to nurse,

nurse, whilst all the rest of the children have been carefully brought up at home.

It is amongst the vulgar errors, however, that the thrush is a very harmless complaint, or is even desirable to a child in the month; for it is said, if it does not then make its appearance, it certainly will at a more advanced age, and will then prove fatal, or at least, attend the patient in his last illness. The fact is, it is a disease of debility, and therefore attacks very young, and very old subjects, especially if otherwise weakened. From the above mistake, however, the disorder is often neglected in the beginning, whereby the acidity in the first-passages is suffered to increase, which always aggravates the complaint. It is, indeed, a much milder disorder in this Island than on most parts of the Continent, (though, a priori, we might, perhaps, suppose it would be otherwise) particularly in *France*, where it reigns as a malignant epidemic, especially in the *Hôtel Dieu*, and *Foundling Hospitals*, known by the names of *Muguet* and *Millet*\*. The thrush,

\* It has been already remarked, that several hospital diseases in *France* are more complex than with us, and possibly from  
from

thrush, however, is as much a disease, as any other complaint that appears in the month, and is connected with most of the foregoing; a proper attention to which, it has been suggested, may very frequently prevent it.

THIS disorder is so well known, as scarcely to require any description, and generally appears first in the angles of the lips, and then

from their Infirmarys receiving a much greater number of patients than ours, and their apartments and beds being consequently less clean, as well as the air more foul, and disposed to multiply contagion.

This is remarkably the case in regard to the diseases of infants, whose temperament is a singular union of debility and spasm, which the *French* have aptly termed *Laxité vibratile*.

The *Muguet* is a striking instance of the above mentioned tendency, it being altogether an hospital disease; which though distinguished by this name, appears to be a malignant thrush, and is frequently attended with a species of the infantile erysipelas\*. When so accompanied, it is said to be constantly fatal, unless the hard and tumid parts terminate in benign abscesses, and suppurate kindly; which is rarely the case, they being more commonly found to mortify.

\* See *Memoires de la Societè Royale de Médecine*, anno 1779.

on the tongue and cheeks, in the form of little white specks. These increasing in number and size, run together more or less, according to the degree of malignity, and compose a thin, white crust, which at length lines the whole inside of the mouth, from the lips even to the gullet, and is said to extend into the stomach, and through the whole length of the bowels; producing also a redness about the anus. When the crust falls off, it is frequently succeeded by others, which are usually of a darker colour than the former. But this is true only in the worst kind of thrush; for there is a milder sort, that is spread thinly over the lips and tongue, which returns a great many times, and always lasts for several weeks. I have seen this so very often the case, that when I observe a child to have the complaint very lightly, and that it does not increase after two or three days, I venture to pronounce it will continue a long time, but will be of no consequence. Care, however, ought to be taken that the child be not exposed to cold.—It is an old observation amongst nurses, and there is some foundation for it, that

that very long sleeping in the course of the first week or two, is often a forerunner of this complaint.

THE thrush, in its commencement, is said to be generally attended with fever; but those who have been of this opinion, do not seem to me to have made what is a very necessary distinction, since I have, by no means, found this to be the case where the thrush is an original disease. When consequent to severe bowel complaints, erysipelas, and other infantile disorders, it is, indeed, often accompanied with fever, and when so, proves either favourably critical, or the infant usually sinks very soon. In ordinary cases, however, I am confident in nine out of ten, there is not the least fever, though the mouth is often so much heated as to excoriate the nipples of the nurse, and becomes so tender, that the child is often observed to suck with reluctance and caution. In very bad kinds of thrush, it has been hinted, a fever may attend; but even here it does not appear at the commencement of the complaint, but rather towards the close; the fever also being of the slow kind. And this is owing to the general ill health induced by the  
morbid



morbid state of the gastric juices and alimentary canal, in the same manner as the common hectic fever is induced by the long continuance of other bowel complaints.

ZUINGERUS\*, indeed, gives an instance of fever accompanying this complaint; but it was in a child of four years of age, and the thrush not the original disease. Symptoms of slight inflammatory fever had preceded the thrush, which appeared a little the next day, and both that and the fever were increased the day after. On the third, both were considerably abated, and on the fourth day the child was perfectly well.

It has long been a received opinion, that the thrush must appear at the anus, and many people will not allow it to be cured if it does not, and for the like reason, they always suppose it to be going off when this redness takes place. But the truth is, that its appearance there is only a mark of the degree of the disease, or of the acidity that occasions it, and not in the least of its cure; and is not, therefore, generally to be wished for. The

\* THEOD. ZUINGERI, Archiatri Basil. Peditoreja Practica, 1722.

redness about this part is occasioned by the sharpness of the secretions in the bowels, and consequently of the stools, which slightly inflame and sometimes excoriate the parts about the anus, and in a bad thrush will do so long before the complaint is going off; but in the lighter kind, no such effects are produced, or are, at least, very slight. And, indeed, this redness has been so often mentioned to me as an indication that infants must, unobserved, have already had a slight thrush, or, according to others, be likely to suffer by it very soon, where children have, nevertheless, escaped it altogether; that I have ventured to imagine such infants may be least of all liable to it, if otherwise in good health, at least, my experience seems hitherto to support that idea. And I have even conceived, that the acidity of the first-passages being in some children more confined, may prove a remote cause of such infants being troubled with the thrush; whilst others by an open belly, and stronger viscera, may escape it, at the expence only of this soreness of the external parts, which often continues for several days. And this has led some people, on the other hand, to call this  
simple

simple redness, the thrush, and we therefore often hear it said, that children have had it only in this part.

A PRINCIPAL remote CAUSE of this disease, seems to be indigestion, whether occasioned by bad milk, or other unwholesome food, or by the weakness of the stomach.—Perhaps thick victuals, particularly if taken hot, and made very sweet; also covering the face of the child when it sleeps, or its breathing the confined air of the mother's bed, may be amongst these causes, and ought therefore to be avoided.—The proximate cause\*, is the  
thickness,

\* If such a term, after all that GAUBIUS and later professors have advanced, may be used in any sense distinguishable from the disease itself, it is presumed, that the circumstances enumerated may be distinguished from those termed *remote* causes. Should this not be allowed of, the term, *proximate cause*, seems to be perfectly useless, and one to which we can never affix any precise ideas; the *cause* and the *effect* being confounded.—But I do not mean to enter far into such a controversy, and have touched upon it rather by way of apology for the use I have made of the term, in this and other parts, and to mark an obscurity which I leave those to settle whose province it may be to take the lead in such matters. It were well, however, if some able  
pathologist

thickness, or acrimony of the juices secreted from the glands of the mouth, fauces, stomach, &c. producing heat and soreness in these parts.—A tea-spoonful of cold water given every morning has been thought a good prophylactic, or preventive: but keeping the bowels duly open, is certainly a much better.

MUCH has been said in favour of emetics, especially wine of antimony, as being almost a specific for this disease, but I cannot say it has proved so with me; nor can I see any sufficient cause for departing from the more ancient practice, in the treatment of this very common complaint.

THERE can be no objection, after having properly opened the bowels, to administering an emetic, and where the thrush is of a dark colour, and the whole inside of the cheeks is lined with it, I am persuaded, it may be useful, by emptying the stomach of the crude juices oozing into it from the glands of this part. But, I think it would be almost as

pathologist could affix some idea that might be universally adopted, so that when we meet with the term in different authors, no reader might be at a loss for the meaning.

endless, as it would generally be prejudicial, to persevere in the use of emetics, for days, and even weeks together, and is both a severe, and an unnatural method of treating a tender infant, in which the bowels are always the most natural outlet for its complaints; on which, therefore, nature uniformly throws the offending matter on almost every occasion, as appears plainly in teething, in which the first-passages cannot be primarily affected.

I BELIEVE, therefore, that where there is no fever, nor any uncommon symptom, testaceous powders are the best and safest remedy; which may be joined with a little magnesia, if the body be costive; or if in the other extreme, and the child is very weakly, two or three grains of the compound powder of contrayerva in its stead. Some such preparation should be administered for three or four days successively, and afterwards something more purgative, to carry down the scales as they fall off from the parts. For this purpose, rhubarb is generally the best; but when the thrush is very violent, is of a dark colour, has come on very rapidly, and the child is lusty and strong, a grain or two  
of



of the powder of scammony with calomel\*, may be joined with it, agreeably to the idea of HEISTER; but this must be given with caution. After the purgative, the testaceous powders should be repeated for two or three days as before, till the disorder begins to give way. Afterwards, a tea-spoonful of chamomile-tea, or a few drops of the compound tincture of gentian, well diluted, may be given two or three times a day with advantage; and the bowels be always kept open.

THE choice of the testaceous powders, on which some writers have said so much, is, I believe, of very little importance: the purest and softest are preferable. The design of these medicines, being to absorb and correct the predominant acidity †, their effect will be discovered

\* A very good method of administering this powder, and other metalline preparations, is that mentioned by Dr. *Armstrong*, by directing them in the form of a pill, which may be broken into small pieces, and given mixed up with the child's food; by which means, they will not precipitate, and be left at the bottom of the spoon, as is sometimes the case when such remedies are administered in powders.

† The *French* physicians are of opinion, that the thrush is owing to what they call a putrid alkaline humour, or

covered from the kind of stools that succeed, and the dose may therefore be increased or diminished, or they may be altogether discontinued, as circumstances direct. In the mean time, if the child is suckled, the nurse's diet should be attended to, and in general, her usual quantity of porter or ale, (which is almost always more than sufficient) should be diminished.

IN regard to applications to the part, it is necessary to observe, that as they have little to do in curing the complaint, it will be improper to have recourse to them very early. I know, indeed, it is very common to begin with them, but they serve only to increase the foreness of the parts, (especially in the man-

something analogous thereto, rather than to an acid. But this cannot be the case in the ordinary thrush, as is manifest both from the appearance, and the sour smell of the stools, as well as from the more certain remedies for the complaint, which are alcalis and absorbents†.—The malignant thrush, (already hinted at) which appears in some of their crowded hospitals, is certainly a very different complaint, and seems, indeed, to be of a putrid nature.

† See the Introduction to the *Second Part*, where these evidences are fully considered.

ner they are generally used) and to give a deceitful appearance of amendment. The proper intention of these remedies, at this period, is merely to preserve the infant's mouth clean and comfortable, and to prevent as much as may be, any pain or injury to the wet-nurse. If therefore the inside of the cheeks and tongue are thickly covered with sloughs, it may be convenient to clean the mouth once a day; but it will in general be improper, till the complaint is past the height, the sloughs disposed to fall off, and the parts underneath inclined to heal; which never takes place till the secretions in the first-passages are become bland and mild. Proper applications will then have their use, not only by keeping the mouth clean, but by constricting and healing the raw, and tender apertures of the excretory vessels.

I HAVE, indeed, lately met with an instance of a very copious thrush disappearing after cleaning the mouth with borax and honey, at noon and night on the fourth day of the disease. Until this time it had been increasing, and I expected would become worse; and therefore directed the mouth to be cleansed so

early, only to render the infant comfortable, and to prevent as much as might be any inconvenience to the wet-nurse. There was but very little appearance of thrush, however, the next morning, and not the least after that day. It is, therefore, likely, that the parts were rendered perfectly clean by the help of the borax somewhat sooner than they otherwise would; though I can, by no means, conclude that it had any other share in the cure.

THE like observations I have had occasion to make in a very recent instance, in regard to an exceeding-slight appearance of thrush, which had continued in the same state for three days; but upon being cleared off by once using the borax and honey, never re-appeared. In both cases, the usual internal remedies were administered both before and after the recourse to topicals.

OF these a variety have been in use, in the form of lotions and gargles, which from the earliest times have all been of an astringent nature.—Honey of roses and spirit of vitriol, or of sea-salt, as recommended by ETMULLER and Dr. SHAW, form a very good one; but  
nothing

nothing is preferable to borax, which some advise to be mixed up with sugar, in the proportion of one part of the former to seven of the latter: a pinch of this put upon the child's tongue will be licked to all parts of the mouth. But I prefer a mixture of borax and common honey, (about two scruples, or a dram of the former to an ounce of the latter,) which hangs about the fauces better than in the form of powder. Either of these may, at this period, be made use of as often in the day as shall be necessary to keep the parts clean, which they will effectually do, without putting the infant to pain, by being forcibly rubbed on. I must own, I have frequently been distressed, at seeing nurses rub the mouth of a little infant, with a rag-mop, as they term it, till they have made it bleed; and this operation they will often repeat half a dozen times in a day.

It only remains to take notice of the black thrush, as it is called, which is confessedly a very uncommon complaint in the infant state. Dr. ARMSTRONG says he has never met with it among the great number of children brought to his dispensary. I have seen only two in-



stances of it, which were in strong and healthy children ; but the parts were not perfectly black, and if that be intended by the name, these cases might not be precisely that complaint : they, however, both proved fatal. After the stomach and bowels have been cleansed, I believe a decoction of the bark, with a little aromatic confection, is the most likely medicine to be of service, and is sometimes necessary in the worst kind of common thrush, when the succeeding sloughs are very opaque, thick, and of a dark colour ; which is, however, always a dangerous symptom. In such cases, the bark should be administered very freely, and the bowels be kept open ; which is more safely done by rhubarb, than any other purge.

ERUPTIONS *on the* SKIN.

IT is, by no means, my intention to enter largely into this extensive subject, but imperfectly understood, perhaps, even to this day. In another part of the work I shall treat of the scall'd-head, and two or three other

other troublesome affections of the skin, but shall at present chiefly confine myself to eruptions peculiar to infancy; adverting first of all, to such as are connected with the state of the first-passages. The earliest of these, is

*The RED-GUM, or BENIGN-ERUPTION.*

THIS is an afflorescence appearing usually in small spots, often confined to the face and neck; but at others, it extends to the hands and legs, and even the whole body, appearing in very large patches, and sometimes raised above the surface. It will likewise appear in the form of small pustules, which are filled with a limpid, or sometimes a purulent, or yellow liquor, and frequently turn dry and horny, and scale off; at least, I have never known what name to give this kind of eruption, but that of a *rank* red-gum, as it happens only in the month, or soon afterwards, and never gives any trouble. There is another species as small as pins heads, or even their points; firmer than the former; often of a pearl colour, and opake, which has generally

nerally been accounted a kind of red-gum; but it has of late been suggested, might for distinction sake, be termed the *white-gum*\*. Every species of this eruption is produced by the same cause as the thrush, but can scarcely be termed a complaint, being a kindly exertion of nature to throw off some acrimony; consequently an evidence of the strength of the constitution, as the thrush is, usually, of its weakness. In the former, nature throws off the offending matter on the surface more completely than in the latter, and therefore, when the eruption is slight, requires no assistance.

ON this account it is, I apprehend, that writers have not usually taken notice of it, though it should seem requisite, if only for the satisfaction of parents, who are sometimes distressed on account of it, especially if it be of the more extensive and rank species. In

\* It is to this complaint, that VOGELIUS seems to give the name of *achores*; but the old writers differ in this respect—of that complaint, however, more will be said in another place, when speaking of disorders described under obsolete terms.

general, it is necessary only to give a little testaceous powder, or magnesia, according to the state of the bowels, and to keep the child moderately warm; otherwise the rash striking in, the acrimony will fall on the first-passages, and be succeeded by sickness, or purging, (till the eruption appears again on the skin) or not unfrequently by the thrush, or a slight return of it, if the child has lately recovered from it. In the case of sickness at the stomach, or any disposition to fits, upon this eruption being expelled, some light cordial, such as a few drops of the compound spirit of ammonia, should be given two or three times a day, and the child's feet, or perhaps the whole body, be put into warm water. The state of the skin, and the bowels have a peculiar consent; and on this account, infants whose first-passages have been frequently disordered, are always benefited by eruptions on the skin; and in such, peculiar care is necessary to guard against their being repelled, as well as to invite their return.

INFANTS are liable to various anomalous kinds of rash, both in the month, and till the period of teething is over. The early ones

ones may be regarded as a sort of red-gum, and children who are most subject to them, generally have their bowels in a better state; the rash carrying off, as has been said, the acidity \* with which they so much abound.

It may be remarked, however, that when infants at the breast are inclined to frequent returns of some eruption, if the child be always indisposed at such seasons, the rash will often be found owing to some ill quality in the breast-milk, which ought therefore to be examined, and particularly in regard to its taste. On such occasions I have found, that milk which has been above a twelve-month old, has contracted a *very unpleasant* flavour; and that upon changing the wet-nurse, a very ill looking rash has immediately abated, and has soon afterwards entirely disappeared, together with the other complaints.

ONE species of these early rashes often takes place about the time of teething, and not unfrequently at the decline of fevers or severe bowel complaints; inasmuch that, upon a sudden appearance of it during a serious ill-

\* See HARRIS, pages 22, 23.



ness, I have often ventured to prognosticate the recovery. This rash very much resembles the itch, both in regard to the little watery heads, and foul blotches; and is confined to no particular part of the body, though it appears more frequently about the face and neck. Indeed, I have seen the whole body so covered with it (and mixed with an eruption about the face, of a different appearance, and evidently red-gum) that in a consultation, it has been by some taken to be the true itch. This eruption is certainly salutary, and even critical, requires nothing but to avoid taking cold, and is mentioned only because it is not an uncommon appearance, and parents who are unacquainted with it, are apt to be alarmed at it.

BUT there is a very common rash that calls for more attention, and to which medical writers have given the name of *Crusta Lactea*, (*Lactumen*, or milk-blotches,) which has a very unpleasant appearance, but is, notwithstanding, equally innocent with the former, and even prevents other complaints. I think I never saw an infant much loaded with it, but it has always been healthy, and cut its  
teeth

teeth remarkably well. Indeed, it falls to the lot of the finest children, and such as are well nourished; whence some have imagined it owing only to the richness of the milk\*. And it is remarkable in this eruption, that howsoever thick and long-continued the scabs may be, the crusta lactea never excoriates, nor leaves any scar on the parts. It may, possibly, be different in some other climates, though I cannot guess for what reason it should be so on the Continent: it is insisted upon, however, by Dr. CAROLI STACK, as well as, that children long affected with it become unhealthy. He recommends the *viola tricolor*. Linn. of which a handful of the fresh, or half a dram of the dried leaves, is directed to be boiled in half a pint of cows milk, and strained off. This quantity of the decoction is to be taken night and morning.

THE crusta lactea appears first on the forehead, and sometimes on the scalp, often extends half-way over the face in the form of large loose scabs, which as the disorder increases, appear not very unlike the small-

\* See ASTRUC.

pox after they are turned. It begins with white vesicles, larger than the itch, which, soon become of a dark colour, to which succeed the scabs, with efflux of ichor, and great itching of the affected parts, sometimes covering the head, and it is, very improperly, said by some, the whole body. It is also said to degenerate into the scall'd head\*; but I have never seen any thing like the true tinea in young infants.

VERY little, I believe, is necessary to be done; but in bad cases a perpetual blister may sometimes be of service. If the urine becomes turbid, or fetid, it is thought the rash will be of short duration. At any rate, it usually disappears of itself when the child has cut three or four teeth, though it may sometimes continue for several months, and in a very few instances even for years: in such cases, the *Harrowgate*, or any other sulphureous water will have a good effect; but the shop-medicines commonly prescribed do nothing. I have known testaceous powders and

\* *Traſtatus de Morbis Puerorum. Amſtelodami, 1760.*  
*Anonymous.*

various alteratives administered to no purpose, as people of rank are very anxious to have it removed, if it be possible. I remember being consulted for a child who had taken a grain of calomel, at short intervals, for several months without any benefit, and fortunately without any injury; which is rarely the case when powerful medicines are administered unnecessarily. This rash will now and then make its appearance very early, and has then been mistaken by those who are not much accustomed to very young children, for the effects of the venereal disease. I not long ago saw such a case, and advised only to keep the body open with a little magnesia: the complaint got no worse, and upon cutting some teeth, disappeared as usual. I have known it, however, disappear suddenly, previously to any teeth being cut, and after some weeks become more violent than ever; the infant remaining all the while in perfect health.

It were almost endless to enumerate the various kinds of rash to which infants are liable, but I mean chiefly to confine my remarks to the more important, or rare ones, and such as  
may

may not have been described by preceding writers. Among such are the following, whose unusual appearance is apt to alarm parents, and others not accustomed to see them.

THE first I shall notice appears chiefly in teething children, very much resembles the measles, and has been sometimes mistaken for it. It is preceded by sickness at the stomach, but is attended with very little fever; though the rash continues very florid for three days, like the measles, but does not dry off in the manner of that disease. It requires nothing more than the shell-powders, or sometimes the addition of a little nitre and compound powder of contrayerva; with a dose or two of rhubarb, or other gentle laxative, on the going off of the rash.

AT this period, especially whilst the double or eye-teeth are cutting, I have noticed a rash which at its first appearance is very similar to the above, and has likewise been mistaken for the measles. It, however, soon spreads into larger spots and patches of a bright red, and afterwards of a darker hue, resembling the ill-looking petæchiæ which appear in bad fevers; but is, nevertheless, of a benign na-



ture. It is, indeed, attended with some fever, arising, possibly, from the irritation occasioned by teething, and has been followed by small and hard round tumours, or lumps, on the legs, which softning in two or three days, always appear as if they would suppurate, though I believe they never do; as will be further noticed in a similar appearance of boils, under the head of fever.

THE treatment, like that of other rashes at this period, is very simple, requiring little more than an attention to the state of the bowels; or, perhaps, a few grains of the compound powder of contrayerva, unless the fever be considerable; which must then be treated according to the directions given under the different heads of fever, and dentition. Should the lumps succeeding this rash, not begin to die away in three or four days, a decoction of the bark will be found useful, when the fever of dentition may not forbid a recourse to it.

I HAVE twice lately seen a third kind of rash, in appearance resembling the measles, and like it covering the whole body, but with larger intermediate patches like the eruption in the scarlet fever; which is mentioned more  
for

for its uncommonness, which might prove alarming, than for its being at all dangerous, or important. It was, however, in both instances, preceded by sickness, by purging, pain, and a little fever; the whole subsiding upon the appearance of the rash, which therefore seemed to be critical, or at least, like some other eruptions, consecutive to convalescence.

AN eruption still less frequently met with, appears after children have cut all their first teeth. I know not what name ought to be given to this kind of eruption, which breaks out in the form of round lumps, as large as middling-sized peas, very hard, with a very red base, and white at the top, as if they contained a little lymph.

THEY come out suddenly without previous sickness at the stomach, are not sore, disposed to itch, nor ever give any trouble, and are seldom seen but on parts that are usually uncovered, and are sometimes there in great numbers, resembling the distinct small-pox; but are harder, more inflamed, and less purulent.

ALARMING, as well as unusual, as this appearance may be, I believe the eruption is

always perfectly innoxious, if not repelled by cold, or improper treatment; and will dry away in three or four days: nothing more being necessary than the little remedies, directed for the former, and to keep the child within doors, if the weather be cold.

AN eruption of an appearance equally uncommon, and analogous to the above, I have met with only in children of at least three or four years of age, and such as have also been affected with slight symptoms of scrofula; though I have not seen it frequently enough to ascertain its being, in any degree, owing to that specific virus. It breaks out suddenly, covering at once the greater part of the body, but occasioning neither pain nor itching, nor are children sick at the stomach nor otherwise ill with it, though it lasts for two or three weeks.

THIS eruption, therefore, like some others, is taken notice of chiefly for its singular appearance, which, though somewhat like the nettle-rash, is of a different figure, but may be pretty exactly conceived of by the little red lumps sometimes left by the small-pox, after they are turned, and also rubbed, or  
picked

picked off, especially after the chrystalline or warty species, and where the pustules have been pretty numerous.

IF the first-passages are at all disturbed, my attention is principally directed to them, otherwise to the state of the skin; and in this case, I have usually directed small doses of Dr. JAMES'S powder, to be taken for a few nights at going to bed, and the polychrest salt and rhubarb, occasionally, in the course of the day, with, or without, the addition of a little of the acitated water of ammonia.

IN the course of a few days the eruption puts on a darker colour, is less prominent, and begins to scale off in a branny scurf, somewhat like the measles: but should no such change take place, the vinum antimonii should be taken two or three times a day; to which, if no amendment should soon be perceived, a few drops of the tinctura cantharidis may be added; a remedy often very efficacious in disorders of the skin; but should be administered with caution.

AN eruption with every appearance of the nettle-rash sometimes occurs in children, and more generally under two years of age, and is

exceedingly troublesome to the infant, as well as matter of surprize to parents, from the suddenness of its appearance.

CHILDREN going to bed perfectly well, wake very uneasy, and frequently continue screaming, for some time, before the cause is discovered. But upon examining the body, and the lower limbs, they are found covered with large wales, resembling those arising from the sting of nettles.

No kind of nettle-rash during infancy, is of the importance that it sometimes is in adults; and only where it may happen to continue a very long time can demand particular notice. The species now under consideration requires less than any other, and, indeed, often disappears in a few hours. A few grains of the compound powder of contrayerva, or other of the milder absorbent powders, with, or without a drop or two of the compound spirit of ammonia, may be given two or three times a day; and the bowels should be kept open.

THIS is, probably, a milder species of the nettle-rash. When the body is more covered with it, and it continues longer, a little more care is required to prevent its being repelled; and



and if it should, the tepid bath, and light cordials should be had recourse to, to procure its return to the surface.

ANOTHER rash, or rather eruption, takes place both in bowel complaints and in teething, resembling the pemphylus of adults, but seems rather to be what the old writers have termed phlyctænæ, or phlyctides, and always appears to be beneficial. It consists of vesications or blisters, of different sizes, resembling little scalds or burns, and continues for several days. They come out in different parts, but chiefly on the belly, ribs, and thighs; and contain a sharp lymph, which it may be prudent to let out by a puncture with a needle, especially from the larger ones. No medicine is necessary but such as the particular state of the bowels may call for, which usually abound with acidity whenever there is much eruption on the skin.

AN eruption, vulgarly termed scorbutic, infesting the face and neck, and discharging a sharp ichor that excoriates wherever it runs, and difficult of cure by chemical alteratives, will often yield in a short time to the expressed juice of the *fium aquaticum*. From

one, to four or five table spoonsful may be given, mixed with one or more spoonsful of new milk, three times a day, according to the child's age, and the state of its stomach; taking care, at the same time, to keep the bowels open by fenna-tea, or other common laxative.

I HAVE several times met with an eruption, resembling the psora of the *Greeks*, or what is called amongst us, the Grocer's-itch; whether depending at all upon the weather, it is difficult to say; but it is remarkable, that I have seen it chiefly during a cold season, and have then usually met with three or four children affected with it about the same time. It often begins about the arms and thighs, but always extends soon afterwards to other parts, and frequently spreads quite from the head to the feet.

It appears in some parts in very small eruptions like the points of pins, with watery heads, and in other parts, as large as peas, and sometimes in foul blotches, which after breaking, form sores, and broad, ugly scabs. These die away, and the like appear, successively, in other parts, sometimes for two or three months, leaving

leaving the skin of a dirty, adust hue. In other parts, the eruption is in the form of small, hardened pimples, which do not break, nor are at all sore to the touch.

THIS eruption appears alike in children who have cut all their first teeth, and in infants at the breast; though I have happened to see it, I think, more frequently in teething children, and it then seems to be connected with dentition. And this has appeared pretty evident, because, previous to my being acquainted with the remedies best adapted to the complaint, children who had taken a variety of medicines, and continued to break out in fresh places, suddenly got rid of the eruption altogether upon my lancing the gums, and three or four teeth in consequence coming through.

WHEN this eruption has appeared in infants at the breast, I have several times known the suckling mother or nurse, in a few weeks afterwards break out in like manner with the child; but whether by accident, or from contagion from one to the other, I have not been able to ascertain.

I WAS for a while much puzzled with this ill-looking eruption, the long continuance of which could

could not fail to be very distressing to the parents, and has even caused a suspicion to rest on the wet-nurse; the eruption being sometimes suspected to be the itch, and at others, venereal; which it certainly is not.

It has been always benefited for a while by washing the parts with two drams of the aqua kali puri in a pint of water; which I would always recommend, though it will not alone effect a cure. Various internal remedies also, which remove other eruptions, have generally failed in this, such as the hydrargyrus cum cretâ, and hydrargyrus cum sulphure, given in large doses; as also the fîum aquaticum. The external application, however, of an ointment consisting of the unguentum sulphuris, and unguentum hydrargyri nitrati, with a greater or less proportion of the latter, has hitherto never failed me, together with the internal exhibition of one or other of the forementioned remedies.

I SHALL close this account with the description of an eruption that is singular enough, resembling very much the herpes, or broad ring-worm, or the adust-coloured spots left on the face after an attack of St. Anthony's fire.

I have

I have seen it in various parts, but I think only on such as are more or less liable to be fretted by some part of the infant's dress, especially on the nates and contiguous parts covered by the cloths; where the blotches are always the broadest and most rank. Were it to appear no where else, it would seem to be occasioned by some sharpness of the urine and stools, as the skin has a very heated appearance, though the eruption, I believe, is not at all painful. It frequently breaks out before the period of teething, but the bowels are generally somewhat disordered, and the stools voided very green, or else become so very soon afterwards. This I take to be one of those eruptions occasioned by some bad quality of the breast-milk, as, I think, I have never met with it but in young infants whose nurses milk has been old, and has also contracted a very disagreeable taste. If that should not be the case, the rash will probably require nothing but the light absorbent medicines before mentioned, and to guard against constipation. But if these means should not succeed in a short time, the nurse ought to be changed, lest some worse  
consequence



consequence should ensue, as will be noticed under the head of convulsions.

IN all the eruptive complaints of infants, taking cold ought to be carefully avoided, and great caution be used in regard to all external applications, as well as keeping the belly open. If the child is sick at the stomach, a little magnesia, or testaceous powder, with, or without, the addition of the compound powder of contrayerva, may be given now and then, as was noticed under the article of red-gum: or should the rash be hastily struck in, and the child be ill, it should be immediately put into a warm-bath, and afterwards take five or six grains of the aromatic confection, with, or without a few drops of the wine of antimony, or of the compound spirit of ammonia, in simple mint-water. Whenever any the least indisposition takes place upon the sudden disappearance of a rash, immediate attention should be paid to it. I have known such retrocession, in a previously healthy child of only six months old, followed not only by vomitings and purging, but by a rapid decline; and upon examining the body after death, the lungs have been found as replete with tubercles,

as

as I have ever seen them at a more advanced age. Instances of so great marks of disease have, however, occurred to me only in families inclined to scrofulous, or hectic affections.

SHOULD any scabs become very dry and hard, which the crusta lactea, for example, will sometimes be, especially when they extend to the crown of the head, and seem to give pain, they may be touched with a little cream, or with oil of almonds mixed with a few drops of the water of kali; but not a large surface at a time. Or should they be very moist, and cause pain by sticking to the cap, they may be dusted with a little common powder, or with flowers of sulphur, and covered with a singed rag, but I should be very cautious of doing much more with desiccative applications, for the reasons above mentioned, especially during the time of teething.

## SORE EARS.

SLIGHT blisters and ulcerations behind the ears of infants are so very common, that almost every parent is well acquainted with them,  
and

and in general require only to be washed with cold water, or covered with a singed rag, to keep the cap from sticking to them, and thereby giving the child pain. They are, moreover, very often beneficial, especially during bowel complaints, or the eruption of the teeth; and will sometimes get well and break out again into very foul sores, several times, without any cause of alarm. But there is in some children of a gross habit of body, and especially about the time of teething, a species of ulcer that often requires attention, on account of its extending low down in the neck, occasioning great pain, and spreading into large and deep sores, insomuch that a mortification has sometimes come on, and even the processus mastoideus has become carious. Here fomentations will be necessary, especially those of bark, and its powder should be administered internally. Such cases, however, do not often occur; but whenever the sores are large and painful, fomentations of white poppy heads boiled in milk, will be beneficial. Should such ulcers be very foul, the cure should be begun by a blister on the back, in order to draw off the heated serum that

that flows to the parts. Where the bark has not been indicated, I have usually given an opening powder of testacea and rhubarb, with a little nutmeg, or sometimes nitre, to which is added either calomel, cinnabar of antimony, or hydrargyrus cum sulphure; the latter of which, I think I have found more serviceable in some eruptive complaints in young children, than seems to be imagined; but then it must be administered in much larger doses than it usually is. But above all, if this species of ulcer be not soon disposed to heal after such treatment, some mercurial application should be made use of, which, though the sores are often apparently inflamed, never offends them. A very clean and elegant preparation of this kind is the following,

R. Calomelan. ʒj ad ʒij.

Ung. Sambuci ʒj m. ft. linimentum.

A little of this liniment spread on each side of a piece of doubled linen-cloth, and applied twice a day, will do more than all the fomentations, or healing ointments, that I have ever seen used; and indeed has always succeeded with me, though I have often been told the sores had

had spread deeper from day to day under various other applications. From such treatment I have never found the least ill effects, but children have preserved their health as well as if the sores had kept open, which, when benign, are certainly designed by nature as a preservative from some other complaints, especially those of the stomach and bowels, which will presently be noticed.

#### ABSCESS *within the* EAR.

IT is not uncommon to meet with fetid discharges from the internal ear, either with, or without inflammation, and external soreness; but this is usually in children of one or more years old, rather than very young infants. If a little cooling physic, and wiping out the matter frequently, should not remove the complaint, deterfive injections should be used, and some one of the warm acoustics, directed for deafness, be afterwards dropped into the ear. The child should also be made to lie, as much as may be, on the affected side, that the discharge may have a free vent.

SHOULD



SHOULD the quantity and fetor of the matter be increased, a blister should be kept open on the nape of the neck, a few purges of calomel be taken, and on the intermediate days, the hydrargyrus cum sulphure. But above all, in the worst cases, fumigations with the hydrargyrus sulphuratus ruber, and hydrargyrus cum sulphure mixed together, should be made use of morning and evening; from which I have seen the best effects when the discharge and fetor have been very great, and the ulcer of long standing.

## VOMITING.

I COME now to the several disorders of the alimentary canal, which have been said to be so materially connected with eruptive complaints; and first, of those of the stomach.

VOMITING is certainly not a common complaint of infants, I mean when considered as a *disease*, unless it be attendant upon some other, of which it is then rather a symptom, or the consequence of such disease improperly treated. Neither are infants in health dis-

posed to vomit frequently, unless the stomach is overloaded; the milk is then usually ejected as soon as it is taken, and comes up unchanged. Nor is this to be considered as a disease, or as calling for the discipline recommended by some writers. Wherefore should the residue of the aliment be forced off the stomach by an emetic, when nature has already parted with all the oppressive abundance? This kind of puking is not attended with any violence to the stomach: the milk, or other food seems to come up without any sensible action of the part, or the child being sick. Nay, it is at once so common to some of the finest children, that it is a saying with some experienced nurses, that a puking child is a thriving child; and when such ejection comes only soon after sucking or feeding, and the aliment is cast up scarcely changed, matter of fact verifies the observation\*. But if the food remains some time on the stomach, it will then be thrown up in a curdled state, which is an indication to attend to it, if it happens frequently. Not that the milk ought

\* See PRIMEROS; *De Morbis Infant.*

not to curdle on the stomach, which it always must, in order to a due separation of its component parts, and is the chief, if not the only digestion, it undergoes in the stomach. The whey and the rich oil are there separated from the curdy and earthy particles, the former being taken up by the lacteal, or milky-vessels in the bowels\*, is converted into blood; whilst the bulk of the latter is carried down and expelled with the other excrementitious parts of the food, and gastric juices, for which nature has no use. This curdling of the milk, therefore, is the natural course of digestion, though many writers have not been sufficiently attentive to it, and HARRIS has asserted, that it is owing to a predominant acid; implying, that an acid is the only cause of the separa-

\* It is not intended in this place to speak with physiological accuracy, but merely to afford common readers some idea of the nature of the first digestion: in the second, indeed, it is probable, that some portion of every constituent part of our food may be further prepared to become nutritious; the thinner serving to renew the finer parts of our system, and the grosser, such as the earthy particles, &c. more adapted to the renovation of the muscles, tendons, bones, &c, may be deposited in these parts.

tion; which it certainly is not. It may, indeed, occasion it to take place too suddenly; and give rise to various ill consequences; although such separation ought to be made, as the natural and proper effect of mixing duly with the gastric juice. When infants, therefore, not over-fed, throw up the milk uncurdled, after it has been some time in the stomach, it is always a worse sign. But when the milk comes up in a curdled state, it proves that the stomach having digested what it had received, hath not power to push it forward into the bowels, and therefore throws up a part of it\*. If this be the case, the stomach may perhaps require to be emptied of its whole contents, which may then be easily done by giving a little warm water, or chamomile tea. The cause of the indigestion was an accidental repletion; that removed, together with the consequent foulness, or bad juices of the stomach, the effect also will generally cease, and unless the vo-

\* I have known a child throw up a piece of curd full as large as the thumb of a grown person, and as firm as a piece of dough; and be perfectly well the next minute.

miting returns, from any further injury the repletion may have occasioned, it requires nothing more. To distress the child, on every such occasion, with a sickening emetic, or drench it with rhubarb and magnesia, is as needless as it would be to awake a patient out of a sound sleep to give him an opiate. Only let the child fast a little after having emptied the stomach of its load, and the nurse be careful not to overfil it for the future, and it will rarely want any other assistance.

IF the vomiting, on the other hand, has arisen from acrid diet, a little further discipline may be requisite, because some half-digested food has got into the bowels, perhaps for several days together. In this case, a gentle laxative, and change of food for one of a milder kind, is all that is generally necessary; or if there be a prevailing acidity in the stomach, either the testaceous powders, or magnesia, (according to the state of the bowels\*) may be mixed with the food, or be otherwise administered for two or three days, as the occasion may require. Or a drop or

\* See note at pages, 70, 71.



two of the water of kali, or a little castile, or almond soap, are excellent remedies, especially when the stools are unusually green, or clayey; not only as they will tend to correct acidity†, but promote a secretion of the gall, as well as a generous warmth in the first-passages, and assist the digestion. For which purposes also, myrrhe, though an obsolete, is an excellent remedy, when infants are a few months old. Should the vomiting be a symptom attending some other disease, its remedy will turn on the proper treatment of its cause. Should it follow upon a suppression of discharge behind the ears, and more especially if consequent upon the use of drying applications, a return of the discharge should be solicited. Or if the cause be the sudden disappearance of some eruption on the skin, the child, it has been said, may be put into a tepid bath, the limbs be well rubbed as soon as it is taken out of the water, and the infant

† It is well known, how small a quantity of soap put into a churn will prevent a due separation of the component parts of the milk, so as to allow very little, or no butter to be made; whereas, a little vinegar effects the separation almost instantaneously, and saves a vast deal of trouble.

be

be then put to bed : and if the vomiting continues, an emetic should be given, and afterwards a blister, or warm plaister, applied to the pit of the stomach ; or some light cordial be administered.

HAVING mentioned emetics, I shall take this occasion to observe, that the choice of them will be always best determined by the nature of the complaints for which they are administered. In those of the first-passages, ipecacuanha is generally the best, but if a fever should attend, or it be wished to promote a gentle perspiration, those of antimony are preferable ; or lastly, in disorders of the breast, the oxymel, conserve, or tincture of squills.

BUT a more troublesome vomiting will sometimes arise in unhealthy children, from too great a sensibility, or too great an irritability of the nerves of the stomach. Such medicines are then indicated as will brace, or strengthen that organ, and abate its sensibility. For the former, a cold infusion of the bark, or of chamomile flowers, with orange peel and ginger, and sometimes a little rhubarb : for the latter, a saline mixture with a

drop or two of laudanum. And the benefit of these may be increased by aromatic and spirituous fomentations to the pit of the stomach, or by the labdanum plaister, with a little theriaca added to it. Also the following,

℞. Gum mastic. elect.

Stor. calamin.

Pulv. Nuc. Fr. Myristicæ

Fol. Myrti

Flor. Balauſt. āā ʒj.

Ceræ atque Tereb. āā Q. S. ut ft. Em-plastrum, alutæ inducendum.

℞. Ung. simpl. ʒiij.

Olei Macis (dict.)

— Rorismarini āā ʒß.

Balf. Peruv. ʒij.

M. F. Unguent. quo tot quotidie Regio Stomachi atque Umbilici calide inungatur, supraponendo ulterius morsum lanulæ.

LASTLY, a vomiting may arise from a strangulated hernia, or rupture. When therefore, scarcely any thing is found to stay on the stomach, or all the above remedies fail to remove a frequent disposition to vomit, the parts where ruptures appear should be very carefully

carefully examined, and upon the least suspicious appearances being discovered, the assistance of the nearest surgeon be called for\*.

### CARDIALGIA, *or* INFLAMMATION *of the* STOMACH.

THIS is a disease very seldom met with, I believe, in this country, but is common in *France*, as it appears by a paper read lately before the *Royal Society of Medicine*, in *Paris*, by Mr. SAILLANT; and is said to attack children of four or five years of age.

THE pathognomonic, or characteristic SYMPTOMS of this disease are, great pain in the region of the stomach, sometimes recurring every quarter of an hour; violent contortions of the child; and the application of a hand to the seat of the disease. Mr. SAILLANT in the first instance suspected these symptoms to be owing to worms, and prescribed accordingly; but that child dying in a few days,

\* For further observations on this accident, see the Article of *Ruptures*, Vol. II.

the body was afterwards opened, and the presence of genuine inflammation of the stomach, and of a part of the intestinal canal was clearly demonstrated.

THE TREATMENT of this dreadful disease is, however, represented as very simple, consisting only in cooling and laxative remedies, which when administered in good time, are said to be usually successful. For this purpose, Mr. SAILLANT has generally administered the juice of lettuce, by spoonful, every hour; an idea he took up from BAGLIVI, who directed the juice of the sow-thistle in the hemitritus, under symptoms analogous to those of the cardialgia. The juice of lettuce was generally found to relieve the pains in a short time, and some infants who had been judged to be in a hopeless state, and even at the point of death, were perfectly recovered.

MR. ANDRY has done me the kindness of acquainting me, that he has sometimes met with this complaint, in the *hospice des infans trouvés*, especially during the summer, and other times when infants have been obliged to continue there without the breast, for the want of wet-nurses, who are usually otherwise



wife engaged in the harvest and vintage seasons; as well as during a hard frost. In the instances Mr. ANDRY has seen, the infants were found to vomit up every thing that was given them; which it is probable, must generally be the case where the stomach is actually inflamed. In such instances, perhaps, fomentations, or a blister, to the stomach, and the use of a warm-bath, together with castor-oil, or other demulcent laxative, ought to be made trial of.

## GRIPES.

THE Gripes is a very common term amongst nurses, and some writers on children's diseases have treated of it under a distinct head; but this serves to perplex matters, instead of explaining them. If a child be not hungry, or hurt by some parts of its dress, there are always symptoms attending, that will account for its crying, and other expressions of pain. The cause is, indeed, very commonly in its bowels, and may be increased by costiveness  
and

and wind, which have already been treated of, but more commonly manifests itself by a purging, which comes next in order to be considered. I shall only previously observe, that children when very much griped, sometimes refuse taking the breast, though offered them repeatedly, when placed, in the usual manner, on the nurse's arm, but will take it, nevertheless, very readily if they are held, upright, before her.—The reason of this, perhaps, is, that the offensive and irritating matters in the stomach then run down from the cardia, which is exceedingly sensible, from its numerous nerves\*.

## PURGING.

UNDER the article of vomiting it was observed, that frequent puking is oftentimes an attendant upon some other complaint, and then demands a peculiar attention, and is to be treated agreeably to the nature of such

\* *Nic. Rosen von Rosenstein.*

complaints ;

complaints; and there is, perhaps, none which it more frequently accompanies than a diarrhœa, or purging.

VOMITING and purging very often arise from unwholesome milk or other food, and from a moist cold air, as well as from the sudden disappearance of some eruption on the skin. The purging is not then hastily to be stopped, nor even absorbent powders to be given, till the offensive matter be first carried off; and if a vomiting attend, the cure should begin by administering an emetic. But though the purging ought not to be checked without previous evacuations, nor to be stopped hastily, yet it is not to be treated with a daily exhibition of rhubarb, which, though a common practice with many, serves to keep up a purging after the cause has been removed, by creating a continual irritation in the bowels. The diarrhœa, indeed, is a complaint often as difficult to treat as any in the infant state, and is therefore worthy of particular attention. In a general way it may be said, that a sufficient dose or two of rhubarb should be administered in the beginning, and afterwards

afterwards absorbents. If the purging should still continue, an emetic will be necessary, as purges do not always lie long enough in the stomach to carry off the offensive matter it contains. After this, it is often necessary, that the child be purged again, for it should be always remembered, that many complaints of infants, whether seated only in the first-passages, or attended with fever, will frequently seem to be giving way upon procuring stools freely, but will soon return if the same means be not repeated, till the whole irritating matter be carried down. Should such repetition fail of success, though the diet has been carefully attended to, the use of them at present should be laid aside, and recourse be again had to absorbents, and if there be no fever, to light cordials, and even to opiates; without the latter of which, many bowel complaints will not admit of a lasting cure, owing to the great irritability of infants. Such medicines are not, indeed, very often required till children are some months old: but when they are found necessary, not only may syrup of white poppies, but even  
laudanum

laudanum be given with the most perfect safety\*; though from the time of GALEN, (who cautions against giving theriaca to children) till of later years, many physicians have been fearful of directing them, (arguing from their abuse against their use) and especially HARRIS, who in other respects, has written so well on their diseases. I remember being called to see an infant of only two days old, who, through a mistake, had taken some hours before, four drops of laudanum. The parents were greatly alarmed at the child's lying in a stupid, drowsy state, without being able to take the breast or open its eyes. I encouraged them, however, to believe the laudanum would do no kind of harm, if they would frequently get a little breast-milk down with a tea-spoon. Accordingly, though the child lay sleeping above six and thirty hours, it afterwards awoke perfectly well.—This is mentioned, however, only by way of encouragement to such as may be fearful of ad-

\* From the half of a drop, to two, or three drops, in the course of the day, will be a proper quantity for infants from a week old, to the age of six months.



ministering opiates even where they are necessary. They are, nevertheless, very powerful medicines, and should be prescribed with due caution for patients of every age, and especially for infants. A like caution may be necessary in regard to cordials, which are, nevertheless, in many cases equally proper, notwithstanding a modern prejudice against them. There is a certain coldness and languor in infants when they are ill, especially under some bowel complaints; and whenever they may be in that state, that class of medicines will have a very happy effect.

It is to be observed, however, that a purging is not always a disease. The bowels are the great natural, and critical outlet in infants, as the pores of the skin, and the kidneys are in adults. Not the mere discharge, therefore, but the cause of it is, in the first instance, to be removed, and the ill effects are to be guarded against by keeping the purging within bounds. For this purpose, the chalk julep, as it is an astringent only by absorbing the acrid, or changing the acid, and irritating matter, is as safe as it is useful; becomes an excellent anodyne, or composing medicine,

medicine, and after the bowels have been well cleansed, will usually accomplish the cure.

DR. ARMSTRONG takes occasion to speak against the use of absorbent powders, and prefers wine of antimony, from a suspicion he has entertained of the great dependance that modern writers appear to have placed in them, previous to the exhibition of purges, on account of their known property of correcting acidity; and says, that in cases of extreme danger, a physician who is called in late, would, according to this practice, often find no opportunity for purging at all. But surely this is scarcely an argument to prove the superiority of his method, since no writer that I know of, ever designed it as a rule without exception; and HARRIS, who has said as much as any man in commendation of the absorbent powders, does not deny the expediency of sometimes beginning with purgative medicines. But had it been otherwise, the argument goes no further than to prove, that in cases of great danger, the wine of antimony, being both an emetic and a purge, ought to precede the use of the testaceous powders. Instead of this, Dr. ARMSTRONG

slides into a general conclusion from premises evidently limited; though he has advanced nothing against an established, and successful method of treatment. And I may add, that whilst he is fearful, that the absorbent powders (which nobody prescribes without some purging medicines,) should check the looseness, and thereby increase the fever; he ventures, after a repetition of the antimony, to administer what he calls a gentle paregoric, or opiate, to appease the pain, consisting of a dram of syrup of white poppies, repeated every three or four hours, till that end be obtained. So that if the pain should continue for nine hours, a child will take half an ounce of the syrup; and this Dr. ARMSTRONG observes is the only medicine he gives, except wine of antimony, which (notwithstanding the opiate) he supposes to be the efficient remedy.

It is an improper exhibition of absorbents, I apprehend, rather than their dose, that has made some practitioners so averse to them; for they certainly ought, in many cases, to be given in large quantities: but if administered too early, and long continued,  
the

the stools may become like plaister of Paris, and be with difficulty excreted. Such an instance is mentioned by BOERHAAVE, who had, nevertheless, a very favourable opinion of them, as will be noticed hereafter. There is, however, some fallacy in regard to the colour of the stools, as this kind is observed on different occasions, in children who have never taken any of the testacea, if the secretion of the bile be obstructed; as in jaundiced adults.

IN his second edition, Dr. ARMSTRONG mentions another method he has fallen upon for curing this disorder, which, however, appears to be recurring to the ancient method of treating bowel complaints; and seems, indeed, to overturn the idea he had entertained of the superiority of wine of antimony over every other medicine. This method, he tells us, is by cleansing the bowels, by means of proper purgatives, joined with anodynes, or opiates, intermixed in such a manner as to correct the griping quality of the medicines, and lessen the stimulus occasioned by the acrimony of the stools.—A plan worthy of imitation, it is apprehended, and though not

likely to be proper in all cases, must, as an occasional practice, be safe and beneficial.

To return; it is of some consequence to learn what part of the bowels is particularly affected, and the degree of pain that children endure; and some indication may be had from undressing the child, and carefully examining the belly, and gently pressing it in different parts; as well as from the different expressions of pain the infant may manifest, either by a forcible contraction of one or both legs, or of the arms, according as the irritating matter may be higher or lower, or on one, or both sides of the belly; also from the coldness of the feet. Regard is also to be paid to the kind of stools that come away, which in a diarrhoea are seldom good, and are usually distinguished into the four and curdled, slimy, green, pale, clayey, watery, and bloody, some of which are at times also fetid. Under some of these, and particularly the latter, some powerful purgative, such as senna-tea, is generally necessary, if the child is not very young. True bloody stools, however, are less common in infants than adults, and seldom occur but in the last stage of the disease; but a few streaks



streaks of blood may sometimes be mixed with the feces, which arising only from the hemorrhoidal veins, is of no consequence. Watery stools will be considered apart, under the head of the true watery gripes: at present I shall only observe, that very threatening appearances of that affection, when green and curdled matters are purging off, are sometimes happily removed, in a day or two, by a gentle emetic and any such warm purge as that lately noticed\*. When the stools appear very slimy, and more especially the sour, or curdled, or when the child is much disposed to hiccough, the magnesia, and other absorbent powders are calculated to afford peculiar assistance, and may be warmed by the addition of a little grated nutmeg. When the stools are very green, or white and clayey, a drop or two of water of kali may be occasionally put into the other medicines, or a little soap be dissolved in the clysters, which are essentially necessary when much griping attends this complaint; some light cordial is also frequently useful, and the child's belly may

\* See page 67.

be rubbed with a little warm brandy ; or be fomented with a decoction of chamomile flowers, or white poppey heads. But if the tormina be great, clysters of the whey of cows or asses milk, as advised by HOFFMAN will often be found very useful, and should the infant be much emaciated, a portion of the sugar of milk \* should be added to them.

SHOULD purgings return frequently, it will be very useful (especially in the time of teething, or upon the striking in of some eruption on the skin), to procure a little discharge behind the ears, or to apply a burgundy-pitch plaister to the back. For the former purpose, some finely pounded Spanish flies may be rubbed on the part, till a slight excoriation, or rawness, is produced ; or perhaps a better, though not a common method, is to draw a piece of coarse doubled worsted, or a bit of narrow tape, through a piece of common blistering-plaister, and lay it close behind the ears where they rise from the head, and repeating it occa-

\* The sugar of milk may be procured by only evaporating the whey by slow boiling, but may be made more pure by first clarifying it by the white of eggs.

sionally; which will produce a discharge exactly from the spot where it is wont naturally to arise. The following preparation is highly extolled by BOERHAAVE\*, as an almost universal medicine in the diseases of infants; and is certainly a good remedy, especially in their bowel complaints, and particularly when attended with green stools, after the exhibition of proper opening medicines.

TAKE of Venice soap, two drams; prepared pearls, one dram; prepared crabs-claws, one dram and a half; syrup of marshmallows, half an ounce; mint-water and fennel-water, of each three ounces; mix them—A desert spoonful is directed to be taken once in eight hours.

NOTICE is taken in another place†, of pale stools being no uncommon occurrence when children are breeding their teeth. They are also met with in fevers as well as in simple disorders of the bowels; and therefore might be introduced under either of the former heads, instead of this place. But as the stools are

\* *Epist.* 1. ma.—ad J. B. BASSAND: a physician at *Vienna*.

† See the Chapter on *Teething*.

very numerous and watery, and the purging itself is the first occurrence, it has seemed, upon the whole, proper to give it a formal discussion under the present article.

THE complaint, however, has been found most obstinate in children who are turned of a year old, and cutting their double teeth. The stools are not only clayey, thin, and very white, but curdled like those of very young infants at the breast. In the beginning, it is seldom attended with any degree of pain, or other complaint, except it be the loss of appetite; and this has led parents and sometimes other people to think, that the discharge ought to be checked by absorbents, or opiates. But nothing can be so improper; the skin soon becoming hot, the tongue white, and the disorder rarely yielding to any treatment under two or three weeks, unless the teeth are ready to appear. This is almost always the case, if teething be any wise concerned in the complaint; though a purging with pale stools, it has been said, is met with in fevers of another kind, where the cause is confined wholly to the first-passages.

PURGING repeatedly, is in either case, the proper and principal remedy, unless the gums  
are

are in a state to be lanced, or the stools should continue a long time very pale, or clayey, after the fever and purging disappear. In the latter case, some saponaceous medicine will prove serviceable, such as the aqua kali præparati, or a few drops of spiritus ammoniæ compositus, taken two or three times a day; the bowels being still carefully kept open.

WHERE dentition is the probable source of irritation, but lancing the gums has not accelerated the irruption of the teeth, or the period is too early to expect benefit from it, children are not only free from fever, but are, on the other hand, cold and languid, and should therefore be purged less frequently. Some cordial medicine should also be administered on the intermediate days, as well as on the evenings after the physic has operated.

IN the early part of the disease, the active purges are the most proper, such as castor-oil, fenna, and sometimes calomel; or, if the fever be considerable, an infusion of burnt-sponge and fenna, a preparation equally adapted both to the fever, and the purging.

WHEN purgings have continued a long time without any amendment, a peculiar tightness  
of



of the skin will sometimes take place in the last stage of the disease, affording always an unfavourable prognostic ; and of which further notice will be taken under the article of *Skin-bound*.

I COME, lastly, to treat of the true *Watery-gripes*, so called, which is esteemed the most dangerous of all purgings, and is usually thought fatal, though perhaps without reason ; since if properly treated, children recover from it as well as from excessive purgings of any other kind, unless it happen after some other illness, or to very small and tender infants during the month. It is not the having a few very thin stools, however, that is an evidence of the true watery-gripes, for in almost every purging of a few days continuance, the stools are very thin as well as numerous. But in this case, they are thin very early in the disease ; the child looks wretchedly, and every thing it takes runs almost immediately through it, with very little change, as in the lientery of adults. It should likewise be remarked, that these symptoms continue, and are increased as the disease advances ; there being a semblance of watery-gripes,

gripes, that will otherwise deceive, as it requires a different treatment. In this case, the stools are perfectly watery, and tinged only with the bile; and are very numerous; the thin stools arising from a violent, but ineffectual effort of nature to get rid of offensive matters; for upon exhibiting a warm purgative or castor-oil, very thick, and always clayey stools are brought away. A mixture with chalk and aromatics should then be administered; to which laudanum should be added, if the stools are still too numerous, and the child appears much debilitated. The purging medicines must be afterwards repeated as long as the stools shall be clayey; and the restringent cordial interposed, as occasion may require.

IN the *true* watery-gripes there is not the like indication for purging, but the CURE should be begun by administering one or more pukes, especially when the stools are of a dark colour and fetid, as they frequently are in the earlier periods of the complaint. And to this end, a pretty strong one should be prepared, which should be given in divided doses, at about a quarter of an hour's distance, till a  
proper

proper effect is produced; and some hours afterwards a warm purge with rhubarb should be administered, if the disease be not very far advanced. After the first-passages have been cleared, the eighth part of a grain, or less, of ipecacuanha, or a drop or two of wine of antimony, given every three or four hours, with a few grains of the testaceous powders, or the aromatic confection, appear to me amongst the best remedies in the earlier periods of the complaint. Indeed, ipecacuanha in very small doses, especially if duly guarded by some gentle aromatic, is both so useful and safe a remedy, that it should not be hastily laid aside; and when persevered in the use of for some time, will effect wonders, not only in long purgings, but in other chronical complaints.

IN this, and some other parts of this treatise, especially in former editions, ipecacuanha, rhubarb, castor-oil, and other like medicines, have been extolled as emetics and purgatives, somewhat to the disparagement of the *vinum antimonii*. It is, indeed, only by experience, that we are enabled to give a just preference to different medicines of the same class. And  
whenever

whenever experience may warrant the retraction of any opinion formerly given, I hope to be as ready to do it, as to persevere in a sentiment I may judge to be well founded. In this view, I take the present occasion of saying, that in the less aggravated watery gripes, or where a purging is for a long time attended with very bad stools, forbidding the use of restringents; as well as in some little feverish complaints, I think I have found the antimonial-wine (first very strongly recommended by Dr. ARMSTRONG) to be a valuable medicine, and more manageable as an alternative than ipecacuanha, because less disposed to nauseate infants where an emetic may not be directly intended. There being also cases in which the physician wishes a medicine may operate as a corrector of the secretions in the first-passages, or to expel their contents, either upwards or downwards, as may be ultimately most useful, antimonials seem in this view likewise to claim a preference to all other medicines.

IN the more advanced stages of the watery-gripes, and where the child is not very young, the following old medicine is a very good one.

Of

Of *Locatelli's* balsam, one ounce, and conserve of red roses, two ounces: from the quantity of an horse-bean to that of a nutmeg, may be given three or four times a day, according to the age of the child. Others have advised red bole, and gum tragacanth.—The labdanum and other plaisters likewise, as directed for vomitings, or the following, may be applied to the parts above the navel, especially in case of great pain: Take of Venice treacle, one ounce; expressed oil of mace, two drams; and oil of nutmeg, three drops; mix them into a plaister, to be spread on a piece of soft leather: or,

R. Axung. Anserin. ʒij.

Olei expressi Macis (dict.) ʒj.

Menthæ fativæ ʒj.

Bacc. Junip.

Chamomæl. āā ʒss

Misce ft. Linimentum.

Inungatur eo bis vel ter quotidie Stomachi et Umbilici Regio.

Warm flannel with, or without heated bran, may be afterwards laid over the whole belly, and renewed frequently.

SHOULD these means fail, I have known the repetition of a vomit give an immediate  
check



check to the complaint, especially where the stools continue to be remarkably sour. So long as this is the case, it would be both vain and hazardous to exhibit opiates, or powerful restringents: the acidity must be first carried off by warm purges, and be corrected by absorbents; the latter of which must be given in large, and repeated doses, and frequently their powers be augmented by the addition of water of kali, or tincture of myrrhe. And an excellent remedy sometimes, as an anti-acid, is the spiritus salis ammoniaci succinati of BATES's dispensatory. The acidity once removed, a starch clyster may be thrown up, two or three times a day, with, or without a few drops of laudanum, according to the number of the stools, and weakness of the infant. A drop or two of laudanum likewise, may now be given, once or more in the day, (according to the age of the child) either joined with some purgative, or in any of the afore-mentioned medicines, or in the chalk-julep, made warm with tincture of cinnamon, or of cardamoms; and in cases of extremity, in the decoction of log-wood, which agrees very well with young children.

BOWEL complaints, it was said, are frequently owing to improper food, which on this account, should at all times be peculiarly attended to; and when a purging has taken place, ought to be suited to the nature of the stools. In the second part of this work, some further notice will be taken of the article of children's food; at present, I shall only observe, that cow's milk is often found to disagree with them when their bowels are disposed to be too open, at which times, a little lean mutton broth, or beef-tea is abundantly preferable. On the same account, rusks\*, and biscuit-powder are more suitable than bread; but at other times, I believe, either the common, or the French roll, which is already half digested by a previous fermentation, is more easily dissolved in the stomach, if there be not a predominant acid in the first-passages. But where there is an habitual disposition to a purging, I know of no diet so proper for infants who do not suck, or who cannot have enough of the breast, as

\* These are preferable to tops and bottoms, as they are called, which have a good deal of butter in them.

flour baked a long time in the oven, till it breaks into a soft, greyish-coloured powder†, and afterwards mixed with boiled cow's milk, the scum being first taken off; the flour and milk should then be boiled a little time together, till the whole appears like a thin custard. This is a very light and soft food, and sufficiently restraining; and I have often known more good from it, than from all the absorbent medicines ever devised, and have received more thanks for the prescription, as it proves a permanent remedy. I have been lately informed, that the powder of arrow root, boiled in milk, is second to none; but it is yet too scarce for general use, or to furnish decided proofs of the virtues attributed to it. When the watery-gripes, or indeed any violent purging, attacks very young children at the breast, no other food ought to be administered, but the wet-nurse be changed, if the acidity and purging continue many

† To this end, the flour should be put into a small jar, properly covered, and be taken out of the oven several times, and stirred up from the bottom and sides of the jar, that it may not run into hard lumps, but the whole be equally baked.

days, and medicines do not seem to take a proper effect; which they cannot, if any offensive matter be continually thrown into the stomach.

IF infants ill of watery-gripes, are brought up by hand, the strictest attention must be paid to their food, which must be changed from one kind to another, and especially trial be made of broths, as long as the food shall be disposed to turn very acid on the stomach. In one case, I think I saved a child by BATES's julepum vitæ, lowered with water, when nothing else would stay on the stomach. This served both for food and medicine: for the former of which it was still further diluted.

WHEN children who are weaned, are attacked with repeated purgings, and even broth is found to run through them, I have observed no food so generally useful as a bit of the white of chicken, not over-boiled, and afterwards lightly bruised in a mortar with the chicken liquor, and a very little bread, into a kind of light jelly. But this should not be given oftener than twice, or at most, three times a day.

IN all bowel complaints, it has been already remarked, that infants are disposed to eruptions on the skin ; by which they are so frequently benefited, that if any kind of rash appears during long or severe purgings, a recovery may almost with certainty be prognosticated.

THAT I may not multiply separate heads of complaint where little need to be said, I have chosen this place briefly to notice, that many children who are accustomed at all times to have a very open belly, seem to lose the faculty of properly retaining their stools, and need a servant continually to attend them, even at two or three years of age ; inasmuch that some have been suspected of being culpable in the matter. I know of no particular remedy, indeed, on this occasion ; but, perhaps, dashing the parts, daily, with cold water, and administering aqua calcis, and other absorbents may have been of some use : I have, however, observed, that the complaint wears off as such children grow up, though oftentimes not entirely for several years.



## WORMS.

WORMS may, probably, exist in almost any part of our bodies, as well as in the stomach and bowels. They have, accordingly, been found in the pericardium, bladder, the nose, and sinuses of the head, and even in the lungs, liver, and other solid parts. But as we neither know how they are produced, nor how to dislodge them from these recesses, which they also more rarely occupy in young children, it is quite sufficient to notice the fact; our inquiries being properly confined to worms in the first-passages.

It is on this account, that the complaint is noticed in this place, especially as worms are said to have been voided by infants of only a few weeks old. It is even reported\*, that LILLE VAN DEOVERIN has discovered them in the still-born foetus. This, indeed, is much

\* *Philosoph. Transactions*.—The same author reports that a peasant, after taking an emetic brought up forty Dutch ells of tape-worm, and yet left some part remaining, having through his agony, bitten the worm off.

doubted by others, it being a very old observation, that worms are never found in infants who are nourished only at the breast; and if so, it is not likely they can be generated before birth. *Mr. De Lille*, however, disputes this, asserting, that worms were expelled from his own daughter, when only eleven weeks old, and living entirely at the breast.

It is evident, however, that worms are much oftener suspected to be the cause of children's complaints than positively ascertained; and of this, practitioners who deal in secret medicines, have in every age made their advantage; it being certain, that a mere foulness of the bowels will produce all the evils attributed to worms. Neither are all children equally affected by them where they are actually met with; some infant-children (as well as quadrupeds) continuing very healthy, though they are seldom free from them, and others parting with great numbers, unexpectedly, without any previous indisposition; whilst some children are very ill who have apparently very few. The pains and other

complaints in such case arise from some other source, of which I lately saw an instance in a girl of twelve years of age, long subject to excruciating pains of the stomach, for which she took various worm-medicines, and actually parted with several large lumbrici, but without the least relief to her pain, which immediately yielded to antispasmodic remedies.

I, nevertheless, cannot agree with Dr. BUTTER, that worms in the human intestines are altogether innoxious, much less, as he seems to think, useful, and intended as "nature's remedy for destroying the superabounding morbid humours; and for stimulating the first-passages by their crawling motions, and thereby assisting the peristaltic motion of the guts to carry off what remains of the offending load."\* On the other hand, children who are most troubled with worms are generally of a costive habit.

WORMS become hurtful chiefly from their numbers; first, when they obstruct the bowels, or compress the adjacent parts by their bulk. Secondly, by sucking up the chyle designed

\* *Remittent Fever.* Pag. 36, et seq.

signed for the nourishment of the child. Thirdly, by irritation. Fourthly, by actually destroying the parts; though this is certainly a very rare occurrence, and a far less frequent source of injury than those before mentioned. Worms have, however, been said to eat their way through the intestines; and LISTER relates\*, that some resembling the teretes, but of a whiter colour, have been seen coming from an abscess on the ankle. They are likewise said to have occasioned sudden suffocation, by rising up into the throat and lodging there†.

THEY are chiefly of four kinds, the large round worm; the very small maw-worm, or ascarides, resembling bits of thread; the short, flat white worm, or cucurbitina, and the jointed, called the tape-worm, or tœnia, which is often many yards long. This is the most hurtful of all, and most difficult of cure, because it will remain long in the bowels even

\* *Philosoph. Transf.* See also HEISTER. Their appearance on a sore may, however, be otherwise accounted for than by supposing they may have made their way from beneath the ulcer.

† Mr. LE FEBURE DE VILLEBRUNE.

after it is dead, and is then feldom brought away but in pieces, and that by very powerful medicines. But as this kind of worm is certainly not common in children, though it may sometimes have been met with; and as it generally occasions a variety of symptoms resembling other complaints, for which many different medicines may be required, little more than the mention of it may suffice\*.

THE SYMPTOMS of worms are various, and many of them very equivocal: I shall name only the more constant, and less uncertain ones. Such are fetid breath, especially in the morning; bad gums; itching of the nose, and of the anus, especially from the ascarides; a very irregular appetite, always in extremes, whether of hunger or of loathing; a large, hard belly; pains at the stomach; sometimes

\* It is so uncommon to find more than one of this kind, that it has acquired the name of the solitary worm; yet it is said there are a few instances in which several of them have been met with; but perhaps, attention enough may not have been given in the examination of them, it being well known, that this worm will live a long time after it has been broken into several parts. See *Letter of Dr. Nitret to De Haen, Act. Med.* xij. 219.

vomiting,



vomiting, oftener costiveness or purging, with slimy stools†; irregular colicks; thirst; dullness; peculiarly unhealthy and bloated countenance, with a dark, hollow circle round the eyes; startings in the sleep, and grinding of the teeth. To these symptoms are often added, slow fever, with a small and irregular pulse, pale, or whitish urine, a short and dry cough, (which is an almost constant symptom where the complaint is of long standing, and has injured the health;) sometimes even convulsions, epilepsies, and partial palsies of the lower extremities. In the case of convulsions, if there be a small pulse attended with a hiccough, it is an almost certain sign that the convulsions are occasioned by worms. The like may be said of pain at the stomach, if it be very violent, sudden, attended with great anxiety, and a hardness and soreness of the parts above the navel. But more especially, according to HOME, an edematose swelling of the upper lip, and of the nostrils is a certain token of worms.

† The peristaltic motion of the intestines being increased, the secretion of the mucus must consequently be in larger quantity.

THE CAUSE of this troublesome complaint is not, perhaps, certainly known; but the great moisture of young persons is thought to be an occasion of their being more infested with them than older people: and children, whose digestion is weak, are more liable to them than others. Since the doctrine of equivocal generation has been justly exploded, it has, however, been generally imagined, that worms are engendered from the eggs of insects, which float in the air, or are swallowed with some part of our food, such as summer fruits, vegetables, cheese, and some kinds of flesh meats. But, perhaps, this is not altogether so certain as it may seem at first sight, unless we are to imagine that these supposed eggs produce very different insects, from being taken into the stomach and bowels, than they would if deposited elsewhere; since it is generally thought, that insects of this kind, especially the tape-worm, are not met with any where else\*; neither will it account for  
their

\* Although this seems to be the fact, there are not a few learned men of a different opinion. Many travellers, and others, better acquainted with natural history than I  
am,

their existence in the unborn fetus, if that be really a fact. It is, however, more than probable, that they were destined by nature to be generated, and to live in the bodies of other animals, as observed by Dr. BLACK\*, and ROSSEEN.

BUT whatever be the cause, the general intention of CURE is obvious enough, which is to bring them away in the most easy, and expeditious manner, whether alive, or dead; the difficulty chiefly consisting in dislodging

am, have reported, that the very same kind of worms may be met with amongst vegetables, in the earth, and both in standing and running waters. That the tape-worm, particularly, has been seen in the waters about *Constantinople*, where the complaint is very common; and that natives of northern climates, who have resided for any length of time in *Turkey*, are very frequently afflicted with the tœnia, as it is supposed in consequence of drinking of the foul standing waters of that hot climate. LINNÆUS also, and others have thought the teretes or lumbrici, to be the same with the common earth-worm; but TYSON has, by dissections, demonstrated the contrary. *Philosoph. Transactions.*

\* *Treatise on the Generation of intestinal Worms, and on the Means of destroying them.*

See also, *Dissert. of J. Mathien Gesner, Mem. Gotting. an. 1751.*

them

them from their firm attachment to the sides of the bowels.

IN this view, systematic writers state the indications to be, first, to destroy the nidus; and secondly, to kill and expel the worms. The first may be effected by alcalis, as aq. kali ppt. sapo venet. bitter aromatics, and mercury; or by resolvents, as the gums, asa-fætida, galbanum, and such like. Secondly, worms are killed by oils, (in clysters) by honey, and by indigestible substances, as the testaceous powders, steel, and tin; and by poisons, as mercury, which at the same time expels them. To these ends, indeed, a variety of medicines, pretty much of the same kind, has been devised, and has served the cause of empiricism in every age. Most of which consist either of the bitter purges, or mercurials.

WORMS existing in the bowels can, indeed, only be carried away by purging; and very active purges are indicated when the time of life and constitution do not forbid\*. But  
when

\* As it is not my intention to enter formally into the distinct treatment often necessary for the tinœa, I merely annex a  
note

when these are tender, gentle purges given duly for some time, by the constancy of their

note in order to refer to SHMUCKER's new medicine, as well as the celebrated remedy of *Madame NOUFFER*, said to be made use of with great success in *France* and *Geneva*; as I have also known it to be, two or three times, in this country. It can, in nowise, however, be proper for young children, though it may, possibly, be safely had recourse to for robust youths, growing up to manhood. It is intended to operate very powerfully on the bowels for many hours, the patient being supported the while by repeated large draughts of broth, or green tea.

The preparation of the preceding day, and some other precise directions, are equally needless in this place, and perhaps the previous exhibition of two or three drams of the *Radix Filicis masculini*, is of as little importance.—For a full account of the process, the reader is referred to *Madame NOUFFER's Treatise*, published by Dr. SIMMONS, anno 1787.

The purge is as follows :

R. Mercur. dulc. optimè sublimat.

Resin. Scammonii elect. ā. gr. x.

Gambogiæ gr. vj. vel vij.

Conserv. Cynosb. Q. S. ut ft. bolus.

THE Cevadella, or Indian Caustic Barley is recommended by *Shmucker* in the fifth volume of the *Journal de Petersbourg* as an almost infallible remedy for the tinœa. He directs a dram of the seeds, in fine powder, to be given every morning, fasting, mixed with honey; and to exhibit on the fifth morning a drastic purgative.

operation



operation produce, without harm, an effect equally, or perhaps more beneficial and lasting, than the active purges. These are often joined, or administered alternately with bitters; and hence have arisen the family receipts, as worm-feed, tansey, and such like, given in treacle or honey, or joined, as it has been said, with rhubarb, fenna, or other gentle laxative. With many, and especially French writers, the male-fern, alone, is reckoned a specific. Olive-oil, likewise, has been said to be a good remedy, as being destructive to worms; but castor-oil is preferable, which by its purgative quality also carries them off by stool.

AGREEABLY to the above view of gradually ridding the habit of these vermin, children of a delicate frame, and such as have not been long infested with them, may begin by taking a little fenna-tea every other morning; but should this, in any instance, prove insufficient, a few grains of the powder of scammony with calomel may be given the over-night, once or twice a week, according to the age and strength of the child; and some tonic medicine be interposed. If purging much should,  
on

on any account, be found improper, the following is very safe and often effectual.

R. Limatur. Stanni ℥ij. Hydrargyr. ʒiij.

Misce, fiant amalgama.

ABOUT eight or ten grains of this powder, with three or four grains of rhubarb, and as much unwashed calx of antimony, may be taken every morning in a little honey, for a week together; after which, a clyster of succorine aloes, dissolved in warm milk, should be thrown up over night, and a proper dose of rhubarb, or senna-tea be taken the next morning: which course may be repeated, as the obstinacy of the complaint, or the strength of the child shall direct.—Volatile alkalis also, in some debilitated habits, will prove serviceable; as well as valerian, especially if it be occasionally joined with jalap. But one of the most powerful means, long in use with country practitioners, and of late strongly recommended by Mr. CHAMBERLAINE, is the *dolichos pruriens*, variously prepared; but the most simple form, that of giving it mixed up with treacle, is, perhaps, the best of all. It should be taken night and morning for three or four days, and then be purged off with  
senna-

fenna-tea, or jalap; and this course be repeated, as occasion may require.

AMONGST other means, especially for such as may be at a distance from medical assistance, is a mixture of pewter filings and treacle, of which children of four or five years old, may take several tea-spoonsful in a day, almost at pleasure; which they will also readily do, for the sake of the treacle. At the same time, from five to ten grains of jalap, with as much of the hydrargyrus cum sulphure should be given twice every week, to purge off the dead worms. Dr. RUSH of *Philadelphia*, strongly recommends the rust of iron, from five grains to half a dram, for infants from one year old to five, exhibiting a purge every fourth or fifth day, to carry the worms down, as they die. To answer the last purpose, the following plaister is sometimes sufficient,

R. Aloes succotorin.

Pulv. flor. Cam. āā ʒj.

Tereb. venet. Q. S. ut ft. Emplastrum (cum margine emplast. adhæsivi) apud regionem umbilici admovendum: sed antea applicationem, imponatur loco umbilici morsum gossipii.

gossipii. Or equal parts of bullock's gall, and powdered aloes, may be mixed up with butter, and the parts below the navel be anointed with it, two or three times a week; or succotorine aloes and powder of dried rue, made into a plaister with Venice treacle, and applied round the navel, first covering that part with a little cotton.—I mention these things with a view to the country poor, whom the benevolence of their neighbours may incline them to assist, and who may, by these easy means, do it at so little expence to themselves. Amongst such likewise, the decoction of quicksilver, in the proportion of about two ounces to a pint of water, may be made trial of, and taken as common drink, of which some people have entertained a very high opinion. When this shall be drank, the like quantity of water may be poured on the same quicksilver, as often as it may be wanted.

If the complaint, however, has been of long standing, and the child not very young, mercurial purges are a more expeditious, and a safe remedy; though the hydrargyrus cum sulphure taken for a length of time, and oc-

casionally purging with senna, has sometimes succeeded, even where there have been the severest convulsions. For which likewise, or obstinate contractions of the limbs, the warm-bath is often essentially necessary.

THROUGHOUT the cure, and indeed afterwards, the diet should be strictly attended to, and all fat and greasy aliments abstained from. The child should live upon milk, broths, and meats of easy digestion, with toasted bread and honey, instead of butter, which is exceedingly pernicious.—To prevent a return of the complaint in older children, or grown people, chalybeate-waters and bitters may be made use of.

#### CONVULSIONS.

CONVULSIONS have been said to be induced by the last mentioned, and several of the preceding complaints. They are of two kinds; the *symptomatic*, depending upon another disease, and the *idiopathic*, said to be an original complaint, and arising from a morbid affection of the brain; though the distinction may  
not,



not, perhaps, be perfectly philosophical, or accurate. It is for want of some such discrimination, however, that writers have had occasion to observe, that children are much oftener supposed to die of convulsions than they really do; for though a convulsion frequently closes the scene, it has generally arisen from the great irritability of their nerves, and violence of the disease under which they have laboured. But should it be granted, that the convulsions of children are generally symptomatic, infants may, nevertheless, be said to die of them more frequently than some authors have allowed; for where a disease is disposed to produce violent convulsions, the convulsions, though a mere symptom, may carry off the patient: and as it may sometimes be prevented or removed, by its proper remedies, (the disease which occasioned it being at the same time properly treated,) infants may often be recovered, who would otherwise expire in a convulsion-fit.

SUCH original CAUSE may be a rash improperly repelled; but is much oftener seated in the gums, in the time of teething; or in the first-passages, where some undigested matter,

or sometimes pent-up wind, irritates the coats of the intestines, and produces irregular motions throughout the whole nervous system. ZIMMERMAN\* relates an instance of this kind, of a child who during the first months of its life, had frequent attacks of violent convulsions, which disappeared intirely, upon the prohibition of meal-pap. Indeed, too much caution can scarcely be given on this head, thick victuals being a more frequent occasion of convulsions in young children than is commonly imagined. Many infants can bear no kind of thickening in their food; any sort of bread, rusk, &c. disordering their bowels, by occasioning their contents to turn pasty, and cleave to the coats of the intestines so as to prevent the absorption of the nutritious part of the aliment, whereby children, in the daily habit of taking sufficient food, are, nevertheless, always emaciated. Weak and tender as they are, they in this state require repeated purges, especially of castor-oil, with some light cordial on the intermediate days, and a total abstinence from farinaceous food. For

\* *Acta Societatis Zyrick.* Vol. 2.

such children, veal-tea mixed with milk, is amongst the most innocent and nutritious. Any offensive load, whether from too great a quantity, or bad quality of the food, by occasioning a faulty secretion, must act like a poison ; and that the convulsions are owing to this cause may often be known by the complaints that have preceded them, such as loathings, costiveness, purging, pale countenance, large belly, and disturbed sleep. If the child is two or three years old, any load at the stomach may be more readily discovered ; the tongue will be foul, the skin hot, and the pulse quick and weak.

Any little matter capable of irritating the nervous system, will induce the symptomatic convulsions in some infants, whilst others will withstand a great deal. For such habits as the former, the cold-bath will be found the best preservative. Every young infant is, however, more or less, pre-disposed to this complaint ; and the disposition continues throughout childhood, in a proportion to the age and delicacy of the habit. The younger and more irritable, therefore, an infant may be, it will be so much the more liable to the

symptomatic convulsion, especially from any considerable disturbance in the first-passages, as was mentioned before, particularly the bad quality, or over thickness of the breast-milk, or other food; and from frights of the wet-nurse. Of this I remember a remarkable instance in a patient of my own, in whose house a visiter dropped down suddenly dead. The mother of the child, which was six months old, was exceedingly alarmed, but her attention being for a moment called off by its crying, she incautiously put it to her breast. It was not an hour afterwards that the infant was seized with a fit, and lay either convulsed or drowsy, without so much as taking the breast, for the space of six and thirty hours; though it was at length happily recovered.

AMONG the various causes of convulsions, (though equally an occasion of many other complaints) may be mentioned that of foul air, and want of cleanliness in the dress, and other accommodations of infants; against which, the lower class of people are, in this work, cautioned repeatedly, nor can they be cautioned too often, or too earnestly. Such a source of convulsions has been peculiarly exemplified



emplified in a disorder whose attack being within the first nine days after birth, has been denominated the *nine days disease*. Readers desirous of a full account of it, are referred to a paper of Dr. CLARKE of *Dublin*, published in the Transactions of the Royal *Irish* Academy for the year 1789.

It is noticed on the present occasion, however, merely to record a fatal convulsion, induced by mismanagement; it being mentioned by Dr. CLARKE himself as altogether an endemic in the *Dublin* lying-in hospital, where it raged for many years, and carried off some thousand children. But it appearing after a while to the Doctor, that the disorder might probably be entirely owing to bad air, and want of cleanliness, he was at great pains to remedy these local defects; and thereby prevented those very frequent attacks of a disease, which under the former circumstances, none of the physicians had been able to cure, in a single instance.

THE CURE of every convulsion will consist, principally, in removing the exciting causes, which must, therefore, be inquired into. If from improper food and indigestion, a gentle



emetic should be given. If the irritation be in the bowels, whatever will carry down their acrid contents will cure the convulsions, if administered in time; and we ought generally to begin with a clyster. If the stools appear very foul after common purges, (in which case there will frequently be a difficulty of breathing) a few grains of the powder of scammony with calomel may be given with great propriety. But if the disposition to convulsions continues, after the bowels have been properly cleansed, and no new irritation of them may be apprehended, anti-spasmodics should be administered\*, such as tincture of foot or  
of

\* I speak from my own experience of the efficacy of such remedies, and it may not be amiss to observe, that HARRIS, who is extremely cautious of giving heating medicines to infants, speaks favourably of some of these.—“*Ufus horum (says he) haud prorsus improbandus est, vel in tenellis: nempe quia acidum absorbendi facultate excellunt. Verum summâ cautione,*” &c.——Great caution is certainly necessary in regard to every medicine prescribed for infants, and especially, it has been granted, for those of a heating quality: nevertheless, it may be repeated, that in proportion as the disorders of infants shall become more attended to, I doubt not, it will appear that, in this country at least, cordial and  
volatile

of castor, spirit of hartshorn, a drop or two of laudanum, or, of oil of rue; which though an obsolete medicine, I think I have never administered, where there has been any chance of recovery, without very considerable advantage, and, indeed, rarely without effecting a cure. The continuance of the convulsion here treated of, frequently depends on the debilitated state, or tender age of the infant. The oil seems to act by invigorating, and restoring a due tone to the alimentary canal, the grand spring of good health. Dr. COOKE very strongly recommends a mixture with spermaceti and ol. anisi. and perhaps such a medicine from its sheathing and warm carminative qualities may be as proper as many other; though the style of the author is not likely to recommend his prescriptions very strongly in the present day\*. Rubbing the

volatile medicines are frequently both more expedient and useful, than many people have imagined.

\* After having looked into almost every work that has fallen in my way, on the subject of infantile diseases, I did not expect to meet with any thing of so late a date as 1769, that could reflect any such disgrace on the practice of physic, as the very anile performance of this writer.

back-

back-bone, palms of the hands, and soles of the feet with oil of amber, or water of ammonia, has likewise had a good effect; as well as frictions over the whole body; which from the consent of parts, seems to afford more benefit than might be imagined.—A very common cause, however, of recurring convulsions is worms, and where no other probable one may appear, ought to be suspected; the cure will then depend on the proper treatment of that complaint, the symptoms of which have been already sufficiently pointed out.

SHOULD the convulsions arise from the disappearance of a rash, or of a discharge behind the ears, the warm-bath, blisters\*, gentle purges,

\* Blisters may be dressed with the common white cerate, rubbed down till it becomes smooth, and spread upon a double linen cloth, instead of the hard drawing plasters commonly made use of, which are very harsh to the tender excoriated surface.—Blisters will sometimes inflame, or be for many weeks indisposed to heal up, in children as well as in adults; in either of these cases, covering the part with a collard or other soft cabbage-leaf, (with the hard fibres on the bark part cut off, and gently bruised with a kitchen rolling pin) will often remove the inflammation sooner than any other application.

purges, or a few drops of the compound spirit of ammonia joined with the salt of amber, have been already mentioned as the proper remedies. But when the cause is unknown, as the approach of small-pox, measles, or other eruptive complaint, bathing the feet in warm water, and throwing up a clyster, are the safest means. If from teething, after gentle evacuations, and other means directed under that head, blisters, oil of rue, laudanum, or the compound spirit of vitriolic ether, and especially lancing the gums, are the grand remedies. And in a view to the latter, I cannot avoid anticipating in this place the direction for doing this little, and most salutary operation, more effectually than it, usually, is; especially in the case of convulsions. It is pretty well known, indeed, that it is not sufficient to cut down boldly to the tooth, and liberate it in every part, nor merely to free all such teeth as are manifestly making their way, but that others also must not be

application. Dusting the surface afterwards with the finely livigated powder of lapis calaminaris will frequently dispose the ill-conditioned ulcer to heal.

overlooked,

overlooked, which though less evidently, have oftentimes a share in the mischief. But that which I would here also insist upon, is, to repeat the operation frequently, till either the teeth make their way, or the convulsions disappear. And as no harm can arise from the repetition, I wish to enforce the idea very strongly, in every instance, where teething is regarded as the cause of convulsions: a perfect cure of very obstinate fits being sometimes effected by lancing the gums for even five or six days successively. The obvious reason of this direction, is, that the divided parts often tumify, or heal up again, and give rise to sufficient irritation, in certain habits, to keep up convulsions, which on the other hand, yield upon securing the nervous parts from fresh irritation, occasioned by the continued protrusion of the teeth.

WHEN repeated convulsions connected with some disorder in the first-passages, and recurring for several months, have withstood all the above means of cure and been suspected to arise from some fault in the brain, they will sometimes disappear of themselves as the infant gets older. At other times, the appearance



appearance of some other complaint has put an end to the convulsions; and not unfrequently, changing the wet-nurse: and sometimes even weaning children, when six or eight months old, has seemed to remove the complaint. I lately saw a remarkable instance of the concurrence of two of these circumstances; the child being seized with the small-pox, and weaned, at, or near the same time. The infant previous to this, for several months together as constantly fell into violent convulsions as it chanced to chew a crust of bread, eat a bit of plain pudding, or even take bread and milk; and though when debarred from these, and nourished only at the breast of a healthy nurse, the fits recurred every two or three weeks: but after going through the small-pox in a favourable manner, and being taken wholly from the breast, the fits soon disappeared, and the child was able to take all the light food usually given to infants.

IF convulsions come on without any of the preceding symptoms, they have generally been concluded to be a primary disease, and to proceed immediately from the brain. Some derivation

derivation is therefore to be made, by bleeding, if the child seems able to bear it, or by leeches behind the ears; by blisters; purging; bathing the feet in warm water; frictions of the legs, and rubbing the soles of the feet with the water of ammonia. If children of two or three years old are subject to slight and frequent fits, issues or setons should be made between the shoulders, or in the neck, and be kept open for a length of time: chalybeate waters may likewise be useful.

THE idiopathic convulsion if not removed in a few days, is that from which future bad consequences may sometimes be expected, being followed by a temporary loss either of the sight, or hearing, and sometimes of the Intellects. If the former, it is attended with an unmeaning countenance and a constant stare and motion of the eyes.—If water in the head be not particularly suspected, and the common nervous medicines, with purges and blisters have had no good effect, bleeding with leeches, and repeated emetics should be had recourse to; and if the bowels continue in a good state, the aqua kali, as a diuretic, may be made trial of.

SUCH

SUCH are the usual remedies to which recourse has been had for the idiopathic convulsion; but since I put out the former edition I have been led to make trial of musk; and from no small success, think I am warranted in strongly recommending it to the notice of physicians. And I am the rather led to this, because I conceive it to have been long out of repute as a remedy for children, and probably one that has never had a proper trial in their nervous affections; as in that case, we should expect it would have been noticed more particularly by the older writers\*.

IN some of the worst cases, however, of long continued convulsions, and fits apparently truly epileptic, not to be attributed to the usual causes of infantile irritation; as well

• It is not my intention, however, to assert that musk has, at no time, been frequently administered in these cases; tho' it is probable not very lately. I am not ignorant that many valuable medicines have been long neglected, in favor of others of the same class, and been taken up again at a future age. Practitioners, nevertheless, ought to state what has been their own experience of any medicine, in preference to others, after a fair trial of several, in particular complaints.

as where all the customary remedies have been previously and unsuccessfully tried, a free exhibition of musk has restored children to health. And this not only where the long continuance of the fits has led good physicians to pronounce them idiopathic; but where the convulsions have also induced total blindness, or otherwise deranged the faculties for several months.—At least, I may assert, that an immediate abatement of the fits has followed the exhibition of this medicine, and in the end, the removal of all its ill-consequences.

BUT when the *idiopathic* convulsion attacks very young children, it generally terminates very soon, sometimes in ten minutes, and is, indeed, often fatal before any means can be made use of. I have, however, often imagined, that we are frequently mistaken in regard to such hasty deaths, and that when convulsions prove so suddenly fatal, they are more commonly *symptomatic*, and are occasioned much oftener than is suspected by over-feeding.—I have known some of the largest and finest infants I have ever seen, die suddenly

denly in the month, immediately after the nurse had boasted of their having eaten three boats-full of victuals.

IN this view of the disease, a few words more may not be wholly unnecessary, especially as they will hold out much comfort in regard to this alarming complaint ; by which, I am however assured, many infants have perished merely from its not being properly distinguished. For though, indeed, all convulsion-fits are in their appearance exceedingly shocking, yet under proper treatment they are much less frequently fatal than is commonly imagined, however often they may recur : neither is the frequency of their returns during infancy, nor the long continuance of such a disposition an indication of future evils, if the fits themselves be of the kind here supposed\*. But though experience warrants my speaking with confidence on this head, with a view to pre-

\* The above observation is, I believe, strictly true in regard to such kind of fits ; and though in some others, as hinted before, the intellects have appeared afterwards to be impaired, yet are the instances so very few, that there is, upon the whole, little room for parents to be alarmed in the apprehension of such consequences.



vent any unnecessary distress that parents may endure, yet would I, by no means, put them off their guard; since the recovery, in many cases, depends so entirely upon an expeditious use of the remedy, that even the time lost in calling in assistance from abroad may be fatal to the infant.

FITS of this kind are, indeed, pretty generally known to arise from irritating matter confined in the first-passages, as has been already explained, but I believe it is not so generally understood, how often such matters are lodged in the stomach, (perhaps the pylorus itself;) or *very low down* in the rectum. Instances of the latter are not wanting, wherein the hardened feces have lain so low as to dilate the sphincter ani (or lower opening of the bowels) sufficiently to expose them to view, and yet the infant been dead before a clyster could be procured from a neighbouring apothecary's; whereas such fits cease immediately after a plentiful evacuation from the bowels, artificially induced: and I have seen an infant in the month, lying torpid for an hour together, in a kind of fit, and apparently in the very article of death, brought out of it entirely

entirely after a large and spontaneous discharge of thick feces. In like manner sudden death has taken place when the load has been in the stomach; whilst other children have been saved by spontaneously throwing it up.

AFTER what has been said, it would be scarcely necessary to point out the remedies in a formal way, but for the sake of directing the most expeditious manner of applying them. In the first instance, doubtless, the obvious means are a soap clyster with two or more tea-spoonsful of salt, (such articles being always at hand) and afterwards administering one or other of the purges formerly directed; which it may often be necessary to repeat for some days, perhaps with an interval between. But when an infant falls suddenly into a convulsion very soon after sucking, or feeding, especially if on any thing actually improper, and the bowels have been for some days in an orderly state, it may reasonably be presumed, that the irritation is in the stomach, especially if there be an unusual paleness of the countenance, indicating sickness; or on the contrary, any considerable blackness, with symptoms of suffocation;

which I think do not come on so soon when the obstruction is in the bowels. And it should here be remarked, that it is not necessary, that the load in the stomach should be considerable in quantity in order to induce such sudden and alarming convulsions; it is sufficient that the stomach be really oppressed by it to a certain degree; nor does it always appear to arise so much from an oppressive abundance, as from a small piece of undigested food, irritating, and perhaps sticking in the pylorus, or inferior aperture of the stomach.

IN the case here described it would be improper to think of a formal emetic, at least without making trial of some more expeditious means, such as irritating the pharynx, or upper part of the gullet, with the finger, or a feather, or forcing in the smoke of tobacco, if that be at hand; either of which often instantly produces vomiting, and puts an end to the fit. To this end, the child should be supported by a hand placed under its stomach and belly, whilst the feather or other means are made use of; in which position the infant will be made to vomit more readily,

dily, and with less straining, than in any other.—It is hoped that the importance of the subject, as well as the very frequent success attending the plans last recommended, under the most alarming appearances, may be thought an apology for the length of this chapter, as well as the sort of repetitions made use of.

It is further to be noted, that symptomatic convulsions are sometimes the effect of a salutary effort of nature, to produce a crisis in some disease the child labours under; in which case, great caution should be used not to be over officious: bathing the feet in warm water, however, as mentioned before, will be perfectly safe, and perhaps useful.—Having spoken of opiates, I shall just observe, that though they are often very serviceable, when judiciously prescribed, they become very hurtful if improperly administered. They will, however, always be safe, where convulsions continue after the first exciting cause has been removed; or where they are so violent as to become an obstacle to administering proper remedies; or when the original complaint is of a spasmodic nature.

WHEN convulsions occur many times in a day, it is of importance to attend to the distance of the paroxysms, or returns; from which a much better indication may be had of their immediate danger, than from the forcible contraction of the muscles during the fit. For, where the intervals are short, though the fit itself be not long, nor violent, the disease is more dangerous, than where violent fits are attended with long intervals.

## PALSY.

THE Palsy is a more common disorder in infants, and young children than writers seem to have imagined, being confined to no age, (having been seen on the third day after birth) and attacking children in very different degrees, in the manner it does adult persons. It, accordingly, sometimes seizes the upper, and sometimes the lower extremities; in some instances, it takes away the entire use of the limbs it has attacked, and in others, only weakens them. Sometimes the speech is very much affected, and at others not at all; the intellect



intellect is also greatly impaired in some instances, and in others is only torpid, for though children may be dull and heavy, like other paralytics, yet when roused, their imagination is found to be fully awake to the common objects around them.

THE palsy more commonly appears in the form of hemiplegia, attacking only one side of the body; but if it be neither fatal, nor soon cured, it is often found to steal imperceptibly upon the other. In one instance, I was witness to the paralytic affection quitting one side of the body, to seize the other, only two days before the child died.

IN any case, the palsy in young subjects is to be treated in much the same manner as in adults; and being usually attended with costiveness, calls for brisk purges in the first instance, and a repetition of opening medicines throughout the course of the complaint. And, indeed, if cathartics and blisters do not soon afford relief, the disorder usually becomes chronical, and the child sinks gradually in the course of a few months, or drags on a miserable life for ten or twelve years, with more or less debility of the arms or legs; but

very rarely arrives at manhood. Indeed, the causes of palsy, particularly in young people, who are still growing, are so numerous, and are often so entirely out of the reach of art, as-well from their nature, as their seat, being frequently in the nerves themselves, or the brain, that such an event cannot be wondered at.

BUT where no morbid change of parts has taken place, perhaps infants and young children are oftener perfectly cured than those more advanced in years, by the mere exhibition of two or three brisk purges, whereof calomel often forms a necessary part, as the palsy frequently originates from foul matters in the first-passages. After purging, blisters should be applied, and if no fever attends, nervous medicines be administered, such as valerian, castor, ammonia præparata, and the spiritus ætheris vitriolici compositus. In some instances, the bark and steel have proved useful, or frictions with flannel and aromatics, or ether, and the use of the waters at *Bath*; and as frequently as any other mean, electricity, especially if instead of giving shocks, the electric aura only be applied, or  
sparks

sparks drawn from the body seated in the insulating chair.

WHEN the palsy becomes chronical, more general remedies will be called for, according to the particular symptoms that may occur; but in general, remedies of the warmer class.

THE palsy is sometimes occasioned or succeeded by water in the head; and in the former case, the sutures of the skull being generally still open, and allowing of distension, the symptoms of compressed brain will not appear so soon as they otherwise would.

IN the suspicion of hydrocephalus, mercury, and diuretic medicines may be made use of; though it is to be feared, with but little prospect of success, when the original disease has proceeded thus far.

## SKIN-BOUND.

THIS being a spasmodic affection, and sometimes attended with the convulsion called tetanus, may very properly be noticed in this place. In the first edition, it was considered  
only

only in a transient way, under the article of Purging; both from its being conceived to appear chiefly in the form of a morbid symptom attending certain bowel complaints, and because I had then neither seen, nor heard enough of the disease to enable me to offer to the public any very distinct account of it. I could, indeed, wish, that this disorder were yet better understood, and that I were able to lay down a more successful method of treatment than has yet been made known: it appears, however, in every view worthy of the most distinct consideration, as well from the observations made in this country, as from the late researches by several physicians in *Paris*, as I shall have occasion to notice very soon.

HAVING met with no account of this disorder either amongst the ancients, nor very modern writers when I mentioned it in the first edition, I presumed I was announcing a disease, at that time scarcely known, or at least was the first writer on the subject: and such mistakes, I imagine, may not be uncommon. Perhaps, it may be the wise intention of providence, that in succeeding ages,  
many

many things relating to arts and sciences should be forgotten or over-looked, in order to emulate posterity in the pursuit of knowledge; which men would, probably, be less inquisitive after, if things once known were very rarely lost sight of. However this may be, I persevered in my inquiries after this singular disease, from the time I published my first slight account of it, and anxious to discover any traces of its history, I continued to consult the ancient writers, and was once more led to conclude, that no account of this disorder had ever before been given to the public. Previously to the last edition, however, I met with a solitary case, which had occurred in the hospital at *Stockholm*, *Anno* 1718, accurately described by UZENBESIUS, and recorded in SCURINGII *Embrologia* (*de fœtu frigido et rigido*\*,) but without adverting at all to its treatment. The case, as I since find, is transcribed into the *Ephemerid. Academ. Naturæ Curiosor. Cent. ix.*

\* THE midwife is reported to have said, that this infant though born alive, felt as intensely cold and rigid when it came into the world as a piece of ice.—How this might be, I leave to the *Academy of the Curious* to determine.

THE



THE above is related in a manner importing it to be an uncommon occurrence, and the disease at that time little, if at all known : and though recorded in two distinct works, (the latter of which is rather consulted than regularly perused) the case seems to have been generally overlooked, and consequently the true nature of the disease has remained nearly in its original obscurity. It was, indeed, not till a twelve-month after my short account of it appeared, that this disorder began to engage the attention of the *French* physicians, in consequence of *Monsieur ANDRÉ* being called upon to take the charge of the *Hospice des Enfants trouvés* at *Paris*. The disease, indeed, had been for many years noticed both in that hospital and the *hôtel Dieu*, but having always proved fatal, little attention had been for a long time paid to it, till Dr. ANDRY was elected physician to the first mentioned charity ; since which time, no pains seem to have been spared in the investigation of it.

THAT the present account of the disease may therefore be clearly stated, I shall first consider it as it has appeared in this country, in the manner I had long ago intended, and had

had actually drawn up before I was favoured with some further description of it, by Dr. ANDRY.

It has, indeed, been much less common in this kingdom than on the continent, but is equally an hospital disease, and seldom met with but accompanied with some bowel complaint, and still more rarely appearing at the birth. It was first spoken of in public, I believe, by my friend Dr. DENMAN (when physician to the *Middlesex* hospital, and a teacher in midwifery,) as I remarked in the former editions; and it is to him I was indebted for some account of it before I had at all noticed the disorder myself.

THE *British Lying-in* hospital has been very little infested with it, and, possibly, by being solely appropriated to the reception of pregnant women, which the *Middlesex* is not; the air of which may on that account be less pure and salutary. There have been three more instances of it, however, in the *British Lying-in* hospital, since the last edition of this work; but two of the infants were born dead. Dr. DENMAN, it has been said, has seen many instances of it, I shall therefore  
first

first of all lay down the symptoms exactly as they were noticed by him, whose unwearied attention to it, though not with all the desired effect, does him more honour, than could have been derived from the most successful treatment of a disease less fatal than this has proved wherever it has appeared.

“THE following SYMPTOMS have been considered as pathognomonic, or characteristic of the disease.

1st. The skin is always of a yellowish white colour, giving the idea of soft wax.

2d. The feel of the skin and flesh is hard and resisting, but not edematose\*.

3d. The cellular membrane is fixed in such a manner, that the skin will not slide over the subjacent muscles; not even on the back of the hands, where it is usually very loose and pliable.

4th. This stricture often extends over the whole body; but the skin is peculiarly rigid

\* To Anatomists, I would say, that from what I have myself noticed, the appearance and feel of the skin have exactly resembled that of a person who has died during a very hard frost.

in the parts about the face, and on the extremities.

5th. The child is always cold.

6th. The infant makes a peculiar kind of moaning noise, which is often very feeble; and never cries like other children.

7th. Whatever number of days such children may survive, they always have the appearance of being dying."

THIS disease appears at no regular periods; but whenever it takes place it attacks several infants within a short time; and chiefly those, as I have just noticed, who may be in the last stage of obstinate bowel complaints, in which the stools are of a waxey or clayey consistence. It has been also remarked, that it sometimes makes its appearance as an *original* disease, and in that case more frequently, I think, within the first ten days after birth: some children have even been born with it, and such have never survived many days.

I HAVE seen the rigidity extending beyond the cellular membrane, so as to affect the muscles, but only those of the lower jaw, which became perfectly rigid: but this spasm or tetanus does not seem to be a frequent symptom,

symptom, and does not seize the extremities, as it is found to do in *France*; nor have I discovered any extravasation in the cellular membrane after death, reported to be constantly met with in that country. Moreover, in no instance that I have heard of, has the disease been attended with the erysipelatous affections constantly noticed there.

THE CAUSE of this dreadful complaint, when either congenite, or evidently supervenient to disorders of the first-passages, seems to me to be a spasm depending very much upon a certain morbid state of those parts, and with which the skin is well known to have a peculiar sympathy. But when, though an original disease, it does not take place till some days after birth, which, I believe, is rarely, if ever the case except in large hospitals, and other crowded apartments; wherever the irritating cause, in such instances, may be seated, the disease seems to be an endemic of certain seasons, arising from that unwholesome air to which such places are peculiarly liable.

THE means of CURE in this country, (where, it has been said, the disorder is more simple,) have been different from those that have lately been  
been



been found successful in *France*; but instances of recovery have been very few in either. As Dr. DENMAN did me the kindness of giving me the first intimation of such a disease, I very naturally adopted his plan of treatment; which consisted in a strict attention to the state of the bowels, and rendering the several medicines very warm by means of the compound spirit of ammonia, which was administered every four or six hours; and was the only plan that he ever found attended with any success. Together with this, I after some time directed the frequent use of a warm-bath, and chafing the whole body afterwards with warm flannel; and I think myself happy in having fallen upon one part of the plan that has since appeared to have been attended with the first instances of success in *France*, as will be noticed below.

SINCE the former editions of this work, I was called to attend a very lusty child of two months old, who had been suddenly taken with bowel complaints, and whose countenance was so much altered as to indicate great indisposition, in whom the legs and soles of the feet were much swollen, so as to become

what the *French* have termed *arquèes*; but the parts were neither cold, nor inflamed. What turn the complaint might have taken, had it been neglected, I do not pretend<sup>1</sup> to say, but being very early attended to, the infant recovered in three or four days, by only bathing the feet in warm water, and taking a few doses of the warm opening medicine, mentioned in the chapter on costiveness and wind\*, rendered a little more cordial by an additional quantity of the *spiritus ammoniæ compositus*.

As the disease raging so much in *France* seems to differ in many respects from ours, it is very doubtful how far the plan of cure adopted there may be applicable in this country, and my own experience has hitherto not gone beyond the means I have mentioned: but I would venture to suggest, that in many cases, trial might be safely and properly made not only of carminative clysters, but also of a grain of calomel previous to the infant being put into the warm-bath†; and

\* See page 67.

† To the warm water should be added a good quantity of salt, and some Castile soap.

after a sufficient number of stools shall have been procured by these means, exhibiting other volatile and cordial remedies beside the spirit of ammonia; as well as anti-spasmodics of different kinds.

It was after I had made up my mind about this complaint, in the manner that has been just noticed, that an advertisement appeared from the *Royal Society of Medicine in Paris*, proposing this disease as the subject for their next prize-medal. About this time also, Mr. TENON published his *Mémoires sur les Hôpitaux de Paris*, in which is a brief account of this disease; and very soon after this, Dr. ANDRY did me the honour of sending me his Tract, intituled, *Recherches sur L'endurcissement du Tissu cellulaire des Enfans nouveaux-nés*.

THOUGH these works contain very accurate accounts of this disease, and to which Dr. ANDRY especially has paid an attention that must do him great honour, they at first served only to perplex my own views of it. This obscurity arose from the disorder being combined, or as I then rather conceived, intirely confounded with another complaint first publickly noticed, I believe, in the first edition

of this work, under the term *Anomalous Inflammation*\*; and from which Dr. ANDRY had, on this occasion, made two or three quotations. I therefore took the liberty of writing to that eminent physician, and was soon favoured with a satisfactory answer, by which I hope the public as well as myself may be obliged; as it must prevent any mistakes arising from the accounts which the above mentioned works afford of this melancholy disease.

AFTER the description given of this disorder as it appears in *London*, little more will be necessary, I apprehend, than to select the circumstances in which *that* in *France* is found to differ, as related by Dr. ANDRY in his printed work, as well as the letters with which he was pleased to honour me.

It has already been said, that it is more frequently attended with tetanus, and never occurs without those appearances mentioned under the article, termed in this edition, *Infantile Erysipelas*, especially the redness and hardness about the pubes, accompanied further with tumor and redness of the soles of the

\* In this edition termed *Infantile Erysipelas*.

feet. But these parts, it seems, though of a purple red, are intensely cold; very rarely suppurate; but sometimes mortify\*. In one very late instance, however, the infant was not cold†, but on the contrary, exceedingly hot. The legs, thighs, and soles of the feet were red and hard; but no mention being made of a *general* tightness of the skin, it is probable this child was affected only with the infantile erysipelas which appears amongst us.

BESIDES the above variations, the infants are said to swallow with extreme pain; the extremities, especially the legs, are much enlarged, and attended with a serous effusion in the cellular membrane, which we have not hitherto noticed: and the disorder is said to

\* THIS is said to be the case in four or five children out of twenty, all of whom are found to die in a few hours after the gangrene has taken place; and become so putrid, that by the next day, the skin separates from every part of the body, so as to adhere to the hands of those who have occasion to touch them.

† One instance of this kind also occurred at the British Lying-in Hospital, at the time this work was going to the press; and in this case there was likewise tumor, hardness, and redness about the pubes, and different parts of the extremities.



rage most in the hotter months. One instance, however, of difficulty of swallowing, fell under my notice, since this chapter was drawn up; the child, at least, refused the breast, and swallowed unwillingly whatever was offered it: but this infant scarcely survived the attack fifteen hours.—Dr. ANDRY further observes, that the infants die about the third or fourth day, or at furthest, on the seventh from the birth. It is probable, there is another and very material variation, in respect to the degree of stricture and immobility of the skin, which are not clearly expressed to be either so considerable or extensive, as in the disease I have been describing; but are more confined to those parts which become red and tumid. But in the instance recorded by SCURINGIUS it was clearly otherwise, the infant being said to feel, from head to foot, like a piece of flesh dried in the smoke. This child survived a compleat day, during which time it took no sort of nourishment, and never cried, nor made any kind of noise.

UPON examining a great number of dead bodies at the *Enfans Trouvés*, the serous extravasation is constantly met with; is of a deep  
deep

deep yellow colour and fluid, but coagulates with heat; the fat is peculiarly solid; the glands and lymphatics, especially those of the mesentery, are found stuffed, and the liver uncommonly large, with a great quantity of deep coloured bile in the gall-bladder; and the lungs are said to be loaded with blood, as well as to contain an unusual quantity of air.

THE supposed CAUSE of this disease amongst them, seems to me but ill accounted for; the complaint being attributed to the improper diet of the mother or her infant; or to cold it has taken at the birth: whereas, the coldness and rigidity of the skin seem to be but mere symptoms, and not the disease; especially as their children, like ours, are but rarely attacked from the birth. It should rather seem to be a true endemic, arising from foul air, especially as it is found only to attack the poor, and particularly to infect the two large hospitals that are crowded above all others, and receive the lowest and most wretched part of them; of whose new-born children, it is supposed, one out of twenty is visited with this disease.

It has been hinted, that for a long while, little attention was paid to this complaint, on account of its constant fatality, six hundred infants sinking under it every year, in a single hospital; about four hundred of which are born in the *Hôtel-Dieu*.

BUT since Dr. ANDRY'S election to the *Hospice des Infans trouvés*, various means have been attempted both by himself and his colleague, Mr. AUVERTY; and amongst other means, the warm-bath, which appears to have saved the first child that was known to recover. Trial has since been made of blisters to the extremities, which succeeded also in the very first instance, as well as since in several others; so that, in the last year, they are reported to have saved five infants out of every hundred, more than in the preceding one.

*Monsieur SOUVILLE*, surgeon to the *Military Hospital at Calais*, has also given some account of this disease, in the *Journal de Médecine*, under the name of *Ædématie Concrète*, and observes, that it is a very common disorder in the Provinces, as well as in *Paris*. Under his direction, likewise, a warm, or rather vapor-bath,

bath, succeeded in the only instance wherein he had made trial of it.

As this disease, more especially in the form it puts on in *Paris*; has, by the encouragement of the *Royal Society of Medicine*, been more fully investigated, it may be hoped some further light will be thrown on it: in the mean time, as it is evidently a complicated disease, the bark and cordials, with proper attention to the state of the bowels, may be recommended as worthy of trial.

## TETANUS.

THE TETANUS, OR LOCKED-JAW\* of infants, is an equally fatal complaint, and in this country nearly as little known as the foregoing. In some instances, it has been confined to the jaw only, as in *Jamaica*; in others, it has been attended with contraction and rigidity of other muscles of the face, and a peculiar fixedness

\* THIS is the species which Nosologists have termed *Trismus maxillæ inferioris Rigiditas spastica*. Species 1<sup>ma</sup>. *Trismus Nascentium infantes intra duas primas a natiuitate septimanas corripiens*. Vide CULLEN. G. LXIX.

of its features. Sometimes, the rigidity has extended to the neck; and in one child I observed it to be spread so compleatly over the whole body, that the limbs could not be bent so as to place it advantageously in a vessel, somewhat too small, appropriated to a warm-bath. It has already been observed, that it is sometimes joined with the foregoing complaint, but rarely in this country; and even then, the jaw partakes only of that kind of rigidity common to other parts.

IN such instances of *Tetanus* as I have met with, the attack has not been earlier than the sixth, nor later than the ninth day from the birth\*, (excepting one instance, early on the tenth;) and as far as I could learn, the infants had not been costive, (which Dr. EVANS reports to be usually the case in *Jamaica*) nor apparently unhealthy: some, I remember, were remarkably strong and lusty children. It seems somewhat to differ, therefore, from the disease termed *Jaw-fallen*, in the *West-Indies*; and in one instance appeared to have

\* In *France*, however, it is said to attack much older children, though rarely after two years of age. *Memoire de la Societè Royale de Medecine*, Ann. 1787 & 8.



some resemblance to the catalepsy. The rigidity has stolen on in a more gradual way in some instances than in others, but has always been very great as far as it extended, from the moment it has been discovered; so that in instances where the mouth has continued sufficiently open to admit my finger, I could not thereby depress the jaw. In some, the eyes have been bloated, and the whole countenance much swollen.

THE CAUSE of this complaint has been differently conceived of. Dr. EVANS, who has been very conversant with it, attributes it to costiveness, and thinks he has greatly prevented its frequency amongst the negroe infants, by purging them from the birth. Dr. BARTRAM of *Philadelphia*\* attributes this fatal disease to a want of swathing, or proper bandage to new-born infants, and to the application of scorched linen to the navel; but his reasoning, to say the least of it, appears to be very inconclusive.

\* See the *Transactions* of the *College of Physicians* at *Philadelphia*.

It does not in this country seem to arise from constipation, or neglect of purging off the meconium, and much less for want of swathing, but is, probably, owing to a certain state of the air, (as hath also been suspected in the *West-Indies*;) and the more so, as the disease appeared only once in the *British Lying-in* hospital during a great number of years, and then attacked several infants in a short time.—It has appeared again, however, in three instances since the above account of it was given in the former edition.

THE remedies made use of at the hospital were, the warm-bath; fomentations to the rigid parts; frictions with oil and camphire, and BATES'S anodyne balsam; blisters behind the ears, and to the nape of the neck; and asafætida, opium, calomel, the bark, and aromatic confection have been given internally. It remains, however, to make trial of more cordial and tonic remedies as recommended by physicians in *North-America*, where the disease is more common than it is here; such are the oleum succini, musk, wine, and the cold-bath.

ONE infant, in whom the complaint was confined to the jaw, and who had less rigidity than any of the others, never looked ill, and had no convulsions in its limbs, died rather sooner than the rest, excepting the one attacked so late as the tenth day, which was a remarkably large and healthy infant: this child after being five minutes in a tepid-bath of salt and water, fell into a more profuse sweat than I had ever noticed in any young infant, and died in a few hours afterwards, and only twenty-four from the attack. Only one child survived the third day, and that was not seized till the ninth from its birth, and lived to go out of the hospital with its mother, at the end of the third week, and we hoped was then recovering; but it had never been able to take the breast after the attack, and died three weeks after it left the hospital, though, possibly, not altogether from this complaint.

## EPILEPTIC-FITS.

THIS and the three following complaints, as well as the two or three immediately preceding, which relate, some to the more early, and the others to later periods of childhood, are noticed successively in this place on account of their falling under the general class of convulsions, and it is presumed less improperly, on the whole, than ranking them according to the different periods of time in which they might take place.

VERY few words, however, on the EPILEPSY, or falling-sickness, may suffice, as it is either pretty easily cured, or usually continues through life; and is too well known by this popular name to require a particular description: an account of the various precurrent symptoms would be equally useless in this work.—It may just be noticed, that the patient falls suddenly to the ground, and sometimes without any perceptible warning, or at all sufficient to secure him from injury; and is usually much convulsed,

convulsed, but frequently retains his senses during the fit.

I BELIEVE it sometimes takes its rise merely from foul bowels; and certainly more commonly attacks children of a costive habit of body: it should then be treated agreeably to the directions already given in such cases, and especially with active and mercurial purges: after which, the bark, white vitriol, chalybeates, and sea-bathing may be serviceable. In other instances, especially in more advanced life, and towards the time of puberty, the epilepsy seems to be owing rather to a more sensibly nervous irritation. In such cases, blisters to the back of the neck may be useful; and I have experienced much benefit from large doses of the powder of valerian, and opium; and in one instance, by an infusion of savine, fennel seeds, and juniper berries; but I could never entirely conquer the complaint by these means; but the *olium succini* has, in several instances, perfected a cure in young subjects; and of late, where that has failed, I have succeeded with musk.

IN the worst cases I ever met with, in which the fits were very long and violent, and to the  
number



number of twenty or thirty in a day, electricity has very soon rendered them weaker, reduced their number to three or four in a day, and gradually to one in six weeks; but did not entirely remove them. In such obstinate cases it is generally supposed, that the brain is affected by some local or permanent cause, and a perfect cure is consequently despaired of.—Whatever tends to debilitate the system, I have found increase the number of the fits.

WHEN this disease has attacked children of five or six years of age, and where no treatment has been serviceable, the complaint has very frequently disappeared suddenly about the time of puberty, and sometimes a year or two sooner. Where it does not, it will probably continue through life, and now and then prove suddenly fatal.

UPON examining the brain after death, I have sometimes found water in the ventricles, and at others, a small point of bone as sharp as a needle standing out from the internal part of the os frontis, or from the cella turcica, (of which BOERHAAVE and others have recorded several instances) and was, doubtless, the true cause of the disease.

CHOREA SANCTI VITI, *or* SAINT VITUS'S  
DANCE.

I SHALL be equally brief on this untoward disorder, which is equally well known, and though not often fatal, is like the former, I believe, rarely cured but in young subjects.

WORMS, and other foulness of the bowels in children, are likewise frequent causes of this strange convulsion; in which different parts, and especially the extremities are put into continual motion, giving the patient a very awkward appearance, particularly in his walk.

If the first-passages are the seat of irritation, the complaint must be treated in the manner noticed under the preceding article; and, indeed, in most cases, the cure should be begun by administering aloetic, or mercurial purges. But should the disorder appear to be owing rather to relaxation, as it sometimes is, the bark, chalybeates, and other tonics, especially white vitriol, and sea-bathing, are indicated, and are very frequently successful; as I have seen in a late instance,

in a child of eleven years of age.—I have lately been witness to its immediately yielding to electricity, but in this case, it was attended with other symptoms of palsy, which came on suddenly.—Dry-cupping has also been thought useful.

APHONIA SPASMODICA INTERMITTENS, *or*  
TEMPORARY LOSS *of* SPEECH.

THIS complaint when it occurs in children, though it is not a common one, takes place between the fourth and seventh year of their age; is only a transient loss of speech, and is a harmless affection: for though it may recur for a length of time, I believe it never becomes permanent. It is rather a difficulty in articulating, than a perfect loss of speech, lasts only for a few minutes, or at most, a quarter of an hour, and recurs frequently in the course of a day. It is thought to be somewhat of the nature of the chorea sancti viti, and to be occasioned by worms, or other irritation in the bowels; and sometimes by teething.

IF neither the irruption of teeth, nor the exhibition of mercurial purges, and other remedies for worms produce a speedy good effect, any advantage from other medicines is more doubtful; but the long use of the cold-bath, or perhaps time only, whereby a child may acquire more strength, usually removes the complaint. It may be proper, however, to make trial of local applications of a stimulating kind during the paroxysm, or fit; of which remedies, the most innocent is a lump of sugar wetted with lavender drops, and amongst the stronger, a decoction of the pelitory of Spain.

INCUBUS, *or* NIGHT-MARE.

IT will be sufficient barely to notice this affection, it being generally well known I believe, and requiring very little to be done for it; children either outgrowing the complaint altogether, or any occasional return of it, when older, being esteemed rather as constituting an unpleasant moment, than a disease requiring medical treatment.

THE incubus, probably, arises from a spasmodic constriction of the diaphragm and muscles of the chest, taking place during sleep, and occasions a sense and dread of suffocation, and of some huge weight lying across the breast. When children, who happen to sleep with a bed-fellow, awake under the paroxysm, they are wont to say that their companion has lain with all his weight for a long time across them.

THE CAUSE of this complaint seems to be flatulency in the stomach, and indigestion, and chiefly attacks children or young people of a delicate habit, and such as eat too freely of fruits, and especially such as are unripe; or who are in the habit of eating much supper, a short time before going to rest.

THE paroxysms are of different duration, some children lying a much longer time in this unpleasant state than others; but in all, some degree of palpitation of the heart, lightness of the head, tremor, anxiety, or lassitude remains for some time afterwards.

THE curative indications are to rouse and fortify. During the fit, volatiles and fetids may be applied to the nostrils; and as soon as  
may



may be, some anti-spasmodic should be administered internally. Afterwards, clysters, bitter purges, or emetics should be exhibited, as the state of the first-passages may indicate, and the cordial volatile medicines be continued. To these should be added proper stomachics, assisted by a nutritious diet of easy digestion, and cold-bathing, if not otherwise improper.

## TEETHING.

THE Complaints arising during dentition may next be considered, many of the foregoing being blended with it, the first-passages and the nervous system being always more or less affected. The state of dentition is likewise not unfrequently an occasion of many complaints afterwards to be mentioned, such as cough, fever, the rickets, and even consumption; under each of which heads, therefore, occasional references will be made to what will be advanced under this.

THE time of teething is a most important period of the infant state, and subjects it to

manifold complaints and dangers. Some writers, indeed, and particularly Dr. CADOGAN\*, and Dr. ARMSTRONG, seem to think otherwise; and that teething is scarcely to be ranked amongst the diseases of infants. They have imagined that children, if otherwise healthy, would cut their teeth with no more danger than adults, who often cut their wisdom-teeth, so called, at an advanced age, without any difficulty, and always without hazard: they likewise observe, that many children get their teeth easily. But this argument must suppose the healthiest, and best-nurtured children to be, in all respects, in the same circumstances with adults, which is, by no means the case; as they are liable to fever, dangerous purgings, and even convulsions, from causes that would, in no wise, affect the latter: nor can they stand under some of those complaints so long as adults, nor endure the necessary remedies. For the same reason, the measles and small-pox carry off such numbers of infants, when attacked by them a little more severely than common, whilst young,

\* See his *Essay on Nursing*, &c.

and healthy adult subjects often struggle through the most dangerous and complicated kinds, when properly treated from the beginning. Not to mention, that very few infants who are unhappily affected with lues venerea, recover under any treatment, whilst adults are cured in the most advanced stages of the complaint, notwithstanding some parts may be actually mortified. I have, therefore, no doubt, that the time of teething ought to be ranked amongst the most dangerous to infants, and that the greatest attention ought to be paid to it; though, it is probable, on the other hand, that Dr. ARBUTHNOT over-rates its fatality, when he says that one child in ten may be supposed to sink under it; at least, I believe this is not the case where the symptoms are timely attended to.

SOME late writers, and particularly Mr. LE FEBURE DE VILLEBRUNE, have conceived this to be a mere dispute about words; but the difference, indeed, extends much further. For though I would, indeed, by no means, assert dentition itself to be a disease, and have made use of any such like expression merely in a popular way, yet am I confident it induces dis-

ease in very many infants of every habit of body, and more especially, however strange it may seem, in the apparently healthy and robust. Indeed, weak and even rickety children commonly cut their teeth easily, though often very late; or if they should be harraffed by a purging, and other complaints, they, nevertheless, escape with their lives, while very lusty strong children are frequently carried off suddenly at this period, unless the teeth happen to find a very easy passage through the gums. The system, during dentition, being disposed to inflammation, such children much oftener fall into fever than the tender and delicate; like athletic adults, who are more disposed to inflammatory complaints, than those who are of a colder, but less healthy temperament: and it is by acute fever, or convulsions, that infants are carried off, who are well known to survive a thousand lingering and vexatious complaints, if their viscera are sound. It may be here observed, however, that convulsions more rarely take place where a fever attends.

THERE are three observations of HIPPO-CRATES on teething, which, I believe, are in  
general

general well-founded : That infants cut their teeth more readily in winter than in summer ; that such as are rather inclined to be lean, cut them more easily than those that are very fat ; and children who are loose in their belly the most safely of all. The truth of the last of these observations there can be no doubt of.

THIS period usually commences between the fifth and tenth months, and the process of the first teething commonly continues to the eighteenth at the least, and sometimes much longer. The two front teeth in the lower jaw are usually cut the first, and it is commonly a few weeks longer, before the corresponding ones in the upper jaw make their appearance. After which, it is frequently a considerable time before the next under-teeth come out ; but sometimes, though not often, six or eight are cut in a hasty succession. Children sometimes cut their teeth irregularly, or cross, as it is called, both by the teeth appearing first in the upper jaw, and also at a distance, instead of being contiguous to each other : this is accounted, and with some reason, an indication of difficult, or painful dentition. It may also be remarked, that the ease or difficulty



culty of dentition may be gueſſed at, by the circumſtances under which the two firſt teeth ſhall happen to be cut ; the ſucceeding ones frequently making their way in a correſpondent manner.

TEETHING is uſually preceded and accompanied with various ſymptoms: the child drives, or flavers much ; the gums ſwell, ſpread, and become hot ; there is often a circumscribed redneſs in the cheeks, and eruptions on the ſkin, eſpecially on the face and ſcalp ; a looſeneſs, gripings, green, or pale, ſtools, watchings, ſtartings in the ſleep, and ſpaſms of particular parts ; a diminution, or increaſed ſecretion of the urine, ſometimes of a milky colour, at others, ſtaining the cloths in patches, as if it depoſited a brown powder ; a diſcharge of matter, with pain in making water, (imitating exactly a virulent gonorrhœa) which often mitigates the fever : in almoſt all caſes, the child ſhrieks often, and thruſts its fingers into its mouth. A ſymptom leſs common than any of the foregoing, and appearing only in certain habits, is a ſwelling of the tops of the feet and hands : it ſeems, however, of no importance, and goes away upon the appearance of the teeth.

I never

I never met with it but in infants who cut them painfully; and being seldom accompanied with a purging, it is likely may (in its stead) prevent that fever which is otherwise so apt to attend. The above-mentioned symptoms are sometimes followed by a cough, difficult breathing, fits, fever, scrofula and marasmus, or universal decay.

STRONG and healthy children, it has been hinted, cut their teeth earlier than the weak and tender; but are more subject to fever. I have known a weak, and rickety child, without a tooth at twenty-two months old\*, though it lived to grow up; but at the age of five years became scrofulous. The fact, I believe, is, that the extremes of high health, and of debility are both dangerous; the one being exposed to acute fever, or convulsions, the other to a slow hectic and marasmus, or gradual decay. Therefore air, exercise, wholesome food, an open belly, and every thing that has a tendency to promote general health, and to guard against fever, will greatly contribute to the safety of dentition, and to chil-

\* PRIMEROSE speaks of it being as late as the third, or even fourth year.

dren passing quickly through this hazardous period.

DIFFICULT teething is to be treated nearly as other acute diseases with local inflammation. If the body is at all bound, some opening medicine should be administered, and it is to be observed, that even a considerable degree of looseness is useful; few children cutting their teeth so well as those whose bellies are at this time much more than commonly open. Diluting drinks are also very necessary, especially if the child does not suck; with a light food, in small quantities, and taken frequently. If much fever attends, the loss of a little blood, in some way, will be necessary; though children do not endure bleeding so well as they do other evacuations. If the propriety of bleeding with the lancet be doubted, a leech or two, as HARRIS advises, may be applied behind the ears, and is generally serviceable. Clysters are also very useful, especially if there be retention of urine, which will likewise call for the use of the warm-bath. Gentle diaphoretics are also serviceable, particularly of wine of antimony, or the  
antimonium

antimonium tartarifatum, which besides opening the belly, often operate in this way: a blister should likewise be applied between the shoulders, especially if there be any disposition to fits. And, indeed, if stools do not afford some considerable relief, there should generally be some discharge from the skin; since a purging, and eruptions on the skin, when spontaneous, are the grand means of easy dentition. A little discharge should, therefore, be kept up behind the ears, by rubbing the parts with Spanish flies, applying a thread as before directed, or putting on a small blister; which may be kept open. A Burgundy-pitch plaister laid on the back will sometimes suffice, which should be renewed every ten days, till the symptoms disappear, or the teeth come into sight. Even before this period, light scarifications of the gums are very useful, by taking off the tension; or if the teeth are at all to be felt, lancing them, as it is called; the proper method of doing which will be enlarged upon below.

I SHALL close what I have to offer on the general plan of treatment, by observing, that  
the

the indications certainly are to assist the irruption of the teeth, and to moderate the inflammatory and other symptoms; which must be treated according to their kind: all parts of the body readily consenting with the gums at the time of teething, but the nerves, the bowels, and the lungs, more particularly and importantly than the rest. It has been observed, that a purging is beneficial, and it is, indeed, surprizing how considerable a diarrhœa children will stand on this occasion, and how very bad the stools will often be for many weeks together, and a child happily struggle through; though at another time, an equal degree of purging, with such bad stools, and constant fever, would prove infallibly fatal. The diarrhœa is therefore, not only to be cautiously treated according to the directions already given under the article of purging, but is oftentimes rather to be encouraged than suppressed. Very pale stools have been said to be not uncommon at this time, and are sometimes in vast quantity: I have known an infant have fifty in one night, at least by the account of a careful and discreet nursery-maid;



maid; and from the quantity of feces that I saw the next morning, I had no reason to dispute it.

For the fever of dentition, besides bleeding, the absorbent powders are eminently useful, and are, in various respects, calculated to afford relief. To these, sometimes a grain or two of Dr. JAMES's powder may be added at bed-time, which if there should be any thing amiss in the stomach or bowels will either vomit or purge; but otherwise (it has been said) will promote a kindly sweat, which is always beneficial. Nitre is very often useful, joined with the testaceous powders, or a little of the compound powder of contrayerva. SYDENHAM directs three or four drops of the compound spirit of ammonia in a spoonful of water every four hours, for four or five times, and I have thought it very serviceable after proper evacuations; but this dose may be considerably increased, according to the age of the child. Nor is a drop or two of laudanum to be feared, if the bowels have been previously opened, the pain be very great, and the breathing not difficult.

A FREE discharge from the bowels, however, must above all be preserved, when children cut their teeth with fever. The state of their gums must also be carefully attended to, or their fevers will be mistaken and attributed to cold, or other causes, when the source of irritation is wholly in the gums.

THE lungs it has been said, is one of those parts on which the irritation from teething is apt to fall, and when fixed there, the symptoms bear an alarming aspect. A precise acquaintance with their true cause is therefore of the greatest importance; or for the want of it an unsuccessful plan of cure will be adopted. I speak this from much experience, having known good physicians overlook the true cause of the inflammatory symptoms; especially when children have cut the usual number of first teeth. This is known to be sixteen, but some children cut four double teeth in each jaw, instead of only two, making the whole number twenty.

IN such cases, I have met with the most alarming peripneumonic symptoms; foreness of the chest, cough, and great difficulty of breathing,

breathing, with loss of appetite, continual fever, and apparent general decay. In this state, purging the bowels, and properly lancing all the suspected teeth, has given immediate relief; and by keeping up the purging for three or four days, every threatening symptom has so thoroughly subsided, that in a fortnight's time, a child expected from day to day to die of inflammation, or fall into marasmus, has been restored to its former health and spirits.

A PRINCIPAL indication, it has been said, is to assist the eruption of the teeth. This is attempted by cooling, sedative, and demulcent applications made to the gums; by rubbing them with some hard, polished body, such as the coral; or by dividing them with the lancet: which last is the only mean to be depended upon. Rubbing the gums, however, I apprehend, not only somewhat appeases pain, as adults sometimes experience in the common tooth-ach, but it also forwards the growth of the teeth, by drawing more nourishment to them; as well as assists their irruption, by pressing the gum and periosteum firmly against their points. Suitable applications on this

occasion may be, a little honey, or the syrup of white poppies; or the honey may be lightly acidulated with the diluted vitriolic acid. Besides the coral, a crust of bread, or a piece of liquorice-root, may be often carried to the mouth, and may sometimes be preferable, as they will yield a little to the pressure of the gums.

THESE means, nevertheless, and especially the coral, have been objected to by some modern refiners; but the objections are certainly groundless, as in giving this direction we are only following nature. For the young of all animals who suck, as soon as the teeth begin to shoot are always strongly inclined to gnaw such things as afford a little resistance. This may be every day observed in domestic animals; to prevent which in puppies, recourse is had to a ridiculous operation of worming, as it is called, which rendering the mouth a little sore, may prevent them for a time from gnawing every thing that comes in their way: and if their gums become easy, or teeth are cut the meanwhile, they have no longer any desire for it, but what arises from the playfulness of youth.

WHEN

WHEN it is found necessary to lance the gums, (which is ever, at least, a safe operation,) it should always be done effectually, with a proper gum-lancet, and not with a needle, a thin six-pence, or such like instrument, which will not sufficiently divide the gum, nor the strong membrane that covers the teeth. The lancet should always be carried quite down to them, and even be drawn across the double teeth. It is certain, that this little operation gives scarcely any pain, and the relief is at the same time often so considerable that the child appears exceedingly pleased with it, and will immediately afterwards squeeze the jaws and grind them together forcibly, which proves the gums are not very sensible.

THE most painful part of dentition, and that in which children are most exposed to convulsions, is usually from the teeth cutting through the periosteum (or nervous membrane mentioned above) that covers the jaw immediately under the gums. This, I apprehend, in difficult dentition is often not cut through, but is forced up before the teeth, when they are even in sight under the thin



gum; hence it is, that cutting through the gum is so very often useful, and takes off fever and convulsions, which severe symptoms could not arise merely from teeth piercing the gum, which it has been said is not a very sensible part. At other times, the pain and fever seem to arise from almost the very first shooting of the teeth within the jaw, and then they will very often not appear for some weeks after the gums have been properly lanced; and parents are therefore apt to conclude, the lancing has been unnecessary, if not improperly done. I am, however, convinced from experience, that this little operation, though not in the general esteem it *ought* to be, (and by the *French* physicians perfectly dreaded even in this day)\*, is often inexpressibly useful, and appears to have saved many lives, after the most dangerous symptoms had taken place, and every other mean of cure had been made use of. The mere bleeding from the gums is capable of affording some relief, as it is frequently found to do in adult persons distressed with the tooth-ach. And I cannot here for-

\* See *Licentaud*.

bear expressing my surprize, at the fears some people entertain of lancing the gums, and their delaying it so long, if not altogether rejecting it, though no evil can possibly arise from the operation. On the other hand, its advantages are so great, that whenever convulsions take place about the usual period of dentition, recourse ought always to be had to it, after an unsuccessful use of other means, though by an examination of the gums there may be no certain evidence of the convulsions being owing to such cause; the irritation from teething, it has been remarked, often taking place in a very early stage of the business. At any rate, (it is repeated) the operation can do no harm, even at any period, and should the shooting of teeth be only an aggravation to the true cause of the disease, lancing the gums must be attended with advantage. But should teething be the proper and sole cause, it is evident how fruitless any other mean of relief must frequently be: for should convulsions, for instance, take place from a thorn run into the finger, or toe, the proper indication of cure, by an immediate extraction of the thorn, and the probable fu-

tility of other means, would be equally obvious.

THE operation may also be safely repeated, the scars doing no kind of harm. This, however contrary to popular prejudice, may be very evident, not only from the fact of infants cutting their first teeth very easily some weeks after being lanced, but also from the circumstances under which the second teeth are often cut. At this period, children from their more advanced age, and decreased irritability, are less subject to fever, and evidently appear to suffer far less pain, than in the first teething, though the second teeth often have to make their way through much more considerable scars than have been made by a lancet, from the gums having been lanced prematurely. This fact is likewise established from the many instances in which dentists have thought it expedient to draw out the first teeth long before the second are prepared to take their place\*. The objection

\* This practice is, by no means, adduced in a way of approbation, but merely for the sake of the inference drawn from the fact; the writer being persuaded, that the succeeding teeth are thereby frequently ill-placed, by one tooth appearing

objection to lancing the gums from any apprehension arising from the scars, is, therefore, altogether ill-founded, and indeed, it will be frequently necessary to lance the gums several times, as before remarked\*, especially on account of the extraordinary difficulty with which some infants cut their double teeth, which are furnished with two or more knobs, or points. Fever, purging, and even convulsions will sometimes arise from only one point of a large tooth offending the periosteum that covers it, and being nearer the surface than the other points, the lancet may sometimes not completely divide the membrane that lies over the rest, (or it is afterwards healed;) and this part not being injured by the tooth, the symptoms subside on having divided that portion of membrane that was inflamed. But in a little time, another point of the same tooth is found to irritate the periosteum, and calls for the like assistance of the lancet, which again removes all the complaints. This, at

pearing long before others, and growing so large as not to allow proper space for the rest.

\* See pages 171, 172.

least, I have conceived to be the process, when I have found lancing a large tooth immediately remove every terrible symptom, though the fever and other complaints have returned, and the whole of the tooth not appeared till the operation has been three or four times repeated. I have seen the like good effect from it, when children have been cutting a number of teeth in succession, and have bred them all with convulsions. Nothing having relieved or prevented these terrible symptoms but lancing the gums, which has removed them every time it has been done, one or more teeth appearing a day or two after each operation\*.—In such cases, it will often be proper to draw the lancet along a great part of one, or even both the jaws, instead of over only one or two teeth.

SOME writers, however, and Dr. MILLAR particularly, have advised, not to cut quite down to the teeth, but only to scarify the gums, unless the teeth are very near. He

\* Precisely similar remarks have been made by Mr. HUNTER. See his *Practical Treatise on the Diseases of the Teeth*, page 121.



suspects that the instrument often injures them, and produces caries, which he thinks will be communicated to the succeeding set of teeth. But this is mere theory, and I apprehend arises for want of duly attending to the state of the teeth, which are perfect bone, and covered with a strong enamel, long before they get through the gums. The manner of the second teething of children likewise forbids such a fear; for though the first set, (which are designed by nature to be only of short duration) should actually be injured by the lancet, the succeeding ones are not at all likely to be affected by the carious state of the former. For the first teeth of infants constantly become carious at the roots, and are loosened and expelled by that means, when left to nature alone; and though the upper parts of the new teeth are in contact with the carious bottoms of the first set, they never suffer from this circumstance. I have dwelt the longer on this head, because writers are not agreed on the subject, and it is a matter oftentimes of no small importance. I have, however, written from *experience*, and am *perfectly*

*feetly fatisfied* of the propriety and safety of what I have ventured to recommend.

It should be a pretty general rule during the time of teething, to abate a little of the usual quantity of the food, and to increase the quantity of drink, unless the child is very weakly, or every thing is going on perfectly well : or if the child be at the breast, a similar regard ought to be paid to the diet of the nurse.

CHILDREN will sometimes have ulcerated gums in teething, and more frequently where they have not been lanced, which are easily cured by keeping the body open, and touching them with astringent applications. As much white vitriol, or roch alum as will give a moderate roughness to a little honey, is usually sufficient for this purpose. But should this fail in any case, it must be treated as directed under the head of Canker.

#### FEVER.

THOUGH some writers have supposed infants to be as liable to Fevers as adults, and from  
the

the same causes, I have, by no means, found it so, and I wish parents to take comfort from the consideration; having observed for many years, as well in the hospital, as in private practice, that infants do not readily take common fevers, though exposed for a long time to that contagion which has appeared to affect adults around them\*. Their fevers are also of a short duration if properly treated, unless the few that arise from some more permanent irritating cause.

YOUNG children, however, are disposed to certain febrile complaints, and to some peculiar to themselves; which, as I have lately enlarged this work considerably, with the design of taking in all their complaints, I shall bestow some pains in specifying, as well as pointing out the treatment most adapted to each.

THE more frequent CAUSES of fever, are teething, foul bowels, worms, glandular dis-

\* Every physician attending lying-in hospitals, must not only have known many infants suckled, without injury, through the whole stage of bad fevers from which mothers have recovered, but also, in other instances, sucking greedily within an hour or two of their mothers death.

eases, some eruptive and very contagious complaint, or taking cold, and are often attended with symptoms peculiar to children. If from the last mentioned cause, and the cold be severe, it will always be attended with a cough, hoarseness, and some difficulty of breathing, and often with running at the nose or eyes, which will distinguish the fever from all others, except it be the measles; which will be attended likewise with violent sneezing, and a peculiar appearance of the eyes not often met with in a common cold.

If a fever from cold be considerable, the cough violent, and the difficulty of breathing very great, a blister will always be safe and expedient, and may be applied at the pit of the stomach instead of the back, as being both less painful under any motion of the body, and more readily got at to be dressed, or for the application of fresh cloths, where the discharge happens to be considerable. But if the fever and difficulty of breathing should not be very much abated by the blister, children though within the twelvemonth, will bear and even be greatly benefited by the loss  
of

of a little blood\*, at least by the application of two or three leeches, as I have frequently seen; and I mention this again, because it has been thought so highly improper for infants. But I can venture to say, they will be much less reduced by it, than by the continuance of the fever, which the loss of a little blood will, in many cases, shorten by two or three days: it is also sometimes absolutely necessary, as in peripneumonic cases, in which it may even be repeated with safety and advantage†. And this becomes the more expedient, from the consideration that not only inflammation, but true tubercles of the lungs are formed at a very early age; having myself

\* In mittendo sanguine, non tam annos medicus numerare, quam vires ægrotantis æstimare debet. CELSUS. *Lib. ii. cap. 10. p. 78.*

GALEN indeed forbade bleeding till after fourteen years of age, but since the time of CELSUS, that absurd idea has been exploded. RHazes permitted cupping after three or four months; AVICENNA at a year old.—Some allowed of bleeding in the feet or legs, though not in the upper parts; but this useful operation is now justly unconfined, and extended, occasionally, to every period.

† Multa in præcipiti periculo rectè fiunt, aliàs amittenda. *Id. Lib. iii. cap. 18. p. 150.*

seen



seen them, after death, as will be further noticed on the mesenteric fever. Oily medicines, likewise, made into a neat emulsion, are often useful, especially if the child be not suckled; but they should be preceded by an emetic of wine of antimony, as there is usually much phlegm on the stomach; children never coughing it up. In many cases it is also necessary to repeat the emetic, as often as the phlegm in the throat is collected in such a quantity as seems to impede respiration. But if the cough be dry or convulsive, BATES's spirit. sal. ammoniaci succinat. may be safely and usefully administered, if there be not much fever. The body at the same time should be kept perfectly open, and this purpose is usually well answered by smaller doses of wine of antimony, or of Dr. JAMES's powder; but if they should fail to procure stools, as they sometimes will, where there is much fever, they rather do harm than good, unless a little manna, or rhubarb be joined with them.

THOUGH the feverer treatment above-mentioned is indispensable when the cough, difficulty of breathing, and degree of fever are considerable; it is proper here to remark,  
that

that I have known children of two or three years old seized with a sudden difficulty of breathing in coughs arising from common colds, where the fever has not been proportionate to the other symptoms\*. In such cases, the difficulty of breathing may arise from bile on the stomach, and it may therefore be prudent previously to bleeding and a blister, to give a small dose of JAMES'S powder, which will pretty certainly act as a vomit, if our suspicion has been just; and will remove that threatening symptom very soon.

It is very necessary here to observe, that though preparations of antimony may, perhaps, be safely administered under the eye of very attentive parents, they are very powerful medicines, and not to be prescribed by nurses and ignorant people, nor without great caution. And I hope this may be admitted as an apology for the liberty I have taken in saying so much against some practices highly extolled by other writers, and especially the indiscriminate

\* The like peripneumonic symptoms, together with much fever, it has been observed under the head of teething, will sometimes arise during that period. See pages 227, 228.

minate use of antimonial wine, which has induced some people to make free with medicines of this class, who are in no wise competent judges\*. But where such medicines are found to agree, and keep the belly open, children frequently stand in need of no other; though where the fever has been very considerable, I have given nitre to advantage to infants of only a few months old. In the little fevers arising from taking cold, to which some children are very liable, I often join it with a little of Dr. JAMES's powder, (proportioned to the age) and a few grains of the compound powder of contrayerva, lowered with testacea; which I find to be a medicine exceedingly useful, when given in time.—If the head is much affected, putting the feet into warm water, or applying a milt to them just taken from the animal, are admirable remedies; and I think have sometimes saved a life after all hope had been given up. Or a little fresh leaven, or dough, as advised by *Mr. Le Febure de Villebrune*, may be spread

\* A nurse very lately proposed giving half a grain of tartarised antimony to an infant of a few days old.

thinly over the soles of the feet. If the fever be accompanied with much cough, and attended with difficulty of breathing, which comes on by fits, both may be greatly relieved by ten or fifteen drops of the compound spirit of vitriolic ether, given three or four times a day. But in the absence of fever, the breast-milk is often as good a balsamic as can be had ; or if the child be dry-nursed, a little syrup of balsam is both pleasant and useful.

If the fever be not owing to taking cold, to worms, teething, or some eruptive complaint, it will generally be found to arise from some foulness in the first-passages, in which case, opening the belly, and afterwards giving a puke and the testaceous powders, usually remove it. On this account, great attention ought to be paid, to the state of the bowels, and not only in regard to the number of stools, but their kind. This should be a maxim with all those who have the superintendence of children, especially infants, under whatever complaints they may labour ; as a principal indication must be taken from the state of their bowels. In the present instance, if a laxative and eme-

tic have not removed the fever, opening medicines must be continued a while longer, especially castor-oil; but if the stools are very fetid, the pulvis è scammonio cum calomel. or small doses of calomel alone, are the fittest purge; though they require to be administered with caution. I have known not only convulsions, dilated pupils, and drowiness, but also paralytic affections, attended with great pain and continual fever, induced merely, as I apprehend, by a foul state of the bowels; where, after the complaint had been unsuccessfully treated as a fever of another kind, all the symptoms have been removed at once by an active purge. Even infants of only three or four months old will often have very considerable fever, and fits, with so costive a state of the bowels as to require strong purgative medicines to be repeated for several successive days, with clysters and the warm-bath, before the obstruction can be removed, or the fever will at all abate. And I doubt not, it may be matter of surprize to those who may not frequently have met with such cases, to find what a quantity of purging medicines have



have been taken by a tender infant before one proper stool could be procured\*, and how certainly a relapse will take place, if the opening plan be not persevered in, in the manner recommended.—In less urgent cases, and especially in very young subjects, much gentler means will usually succeed, and after the belly has been once or more well opened, many common fevers will nearly subside; after which, it will frequently be proper to return to some of the absorbent powders, in one form or other, and that recommended by BOERHAAVE† may be as proper as any; though the union of different testacea, as there directed, is of very little importance. Any one of them will form an admirable medicine for very young children, as well under little fevers, as for almost all their complaints not attended with costiveness. This, the judicious HARRIS was so sensible of, that he thinks them alone sufficient to effect almost every thing during the *infant* state, and has done unspeakable service by abolishing that

\* See note at page 35.

† See the prescription under the article of *Purging*, page 135.

*indiscriminate* recourse to cordial, and other heating and rough medicines, such as mercury, aurum fulminans, theriaca, &c. together with various anile and superstitious remedies, which the ancient writers frequently recommended on occasions peculiarly improper. And though absorbents will not do every thing he has imagined, yet are there very few medicines of such general use. But should the fever withstand these common remedies, or be found to increase, it will be necessary to give some of those before recommended, or, what is sometimes very useful, little draughts with lemon juice and salt of hartshorn, in which the latter is left a little predominant; or three or four drops of the compound spirit of ammonia, in a little water, four or five times a day.

IN the little obscure fevers of infants, where the cause has not been so obvious as it commonly is, I have now, for some years, experienced very good effects from persevering in the use of small doses of the vinum antimonii, given in a saline draught; this medicine sometimes acting as a stimulant and diaphoretic, and at others, as an emetic or purge, possesses  
advantages

advantages I was not always acquainted with\*. It will be necessary, however, that the bowels be, somewise, kept open under the use of it.

ON the decline of some fevers, especially those arising from foul bowels, it is not uncommon to see an eruption on the skin, resembling that called the red-gum, in the month, and sometimes even the thrush will make its appearance, though the infant may have had that complaint already; which are marks of the great disturbance the first-passages have suffered, and of the consent they have with the skin: the former, it has been said, is always a favourable indication, but the observation does not hold good in regard to the thrush.

FEVERS in children of three or four years old, are sometimes tedious of cure by any of the above means, and like those of adults, require the bark; which should be administered in a light decoction three or four times a day, in such doses as the symptoms may require.

\* See pages 140, 141.

AT the decline of anomalous fevers that have lasted for ten or twelve days, great pain of the neck has sometimes taken place, attended with a little tumor of the part, and great rigidity of the muscles, drawing the head forcibly to one side. A general debility, and want of appetite has continued, though the bark has been administered, and seemed no wise to disagree. In this state, fomentations and poultices applied to the neck, together with some volatile embrocation, has soon removed the contraction, and pain; after which, children have recovered as on a sudden their appetite and spirits.

DURING very cold weather, I have known a slighter degree of pain and stiffness of the neck, with a little fever, return a week or two afterwards; possibly, from taking cold, and as I have thought, from improper food. The antimonial powder with saline draughts, and a repetition of the topical applications, has in such case had an immediate good effect.

I HAVE sometimes met with a fever, more remarkable for its being attended with inflamed and painful tumors, than for any other symptom peculiar to it. These are seated chiefly

chiefly on the legs, and particularly along the spine of the tibiæ; and rise in a day or two to the size of a nutmeg. They are marked with all the appearances of abscesses, feeling as if they contained matter, and on this account, they put on a formidable aspect to such as may not often have seen the disease; but what is remarkable, they never, I believe, come to suppuration, but disappear again in a few days, though the fever sometimes continues. The like appearances have been met with in adults, especially females, and perhaps more commonly in children from three to ten years of age; but are not peculiar to scrofulous habits, though the tumors have very much of a scrofulous appearance and feel. As far as my experience has gone, (for I believe it is not a very common complaint) they are conjoined more frequently with that fever which attends a foul state of the bowels, than with any other; which therefore requires repeated purging, especially with calomel: and on this account, the pulvis è scammon. cum calomel. becomes a convenient preparation. Saline draughts with the spir. ætheris vitriolici comp.



may be given on the intermediate days, and in the end the bark is commonly useful.

THESE appearances have sometimes been preceded by scarlet spots, or patches, resembling the petæchiæ observed in malignant fevers, as was noticed under the article of rashes\*.

### MESENTERIC-FEVER.

ANOTHER cause of fever has been hinted at, which is obstructed glands, especially the mesenteric ; and is often a fore-runner of the true hectic fever, or fatal marasmus.

It, indeed, frequently arises from scrofula, which then discovers itself by other marks ; and will require its peculiar treatment. But there is an early stage of glandular obstruction in the mesentery, and of the fever here alluded to, that is often falsely attributed to worms ; but will not yield to mere purgative medicines. It attacks children from the age of

\* See page 97.

three or four years, the fever remitting, and sometimes intermitting irregularly; is attended with loss of appetite, swelled belly, and pain in the bowels; the latter more commonly taking place, more or less, every day, or is generally more violent if the child be a day or two free from it. After opening the bowels, half a grain, or a grain of calomel may be given to advantage, two or three times a week, and on the intermediate days small doses of the natron ppt. either alone, or neutralized with the juice of lemons, or in some instances partially so. If the belly be very costive, as it often is, an infusion of the burnt sponge and fenna is more effectual than any thing; and when strained through filtering paper, makes a neat preparation, and an excellent remedy for many little fevers, in older children, where the primæ viæ, or first-passages, are particularly concerned. When the glandular fever, just now mentioned, has abated, some light bitter, as of chamomile flowers, is useful to brace the stomach and bowels; and to prevent a relapse, it will often be found necessary to administer some chalybeate, of which the *tinctura florum martialium* is

is one of the fittest for children: if it should offend the stomach, a few drops of the tincture of cardamoms, or other stomachic, should be joined with it.

BUT as the mesenteric fever, from its great fatality and frequency, has lately very much engaged the attention of writers, it may be proper to consider it a little more distinctly in some of its principal stages; in each of which its nature and treatment sometimes materially differ. For before the mesenteric glands become much enlarged, or the fever continual; whilst the appetite continues, and the first digestion is but little impaired, and no purging has taken place; the opening mixture of sponge and fenna, with a few doses of calomel, and afterwards bitters and chalybeates, are the only remedies very likely to be called for; and almost always succeed. In this state, the disorder may still be considered as in its first stage, and of which an unusual costiveness, the hardness and recurring pains in the belly, and an intermitting fever, are the principal symptoms. The limits of this work, however, will not allow of a particular detail of the many others that attend this fever  
through

through its various stages; and it is presumed, they are so well known to medical people as to render it unnecessary. But in general, it may be said, that indigestion; costiveness or purging; irregular appetite; flushed cheeks, or a total loss of colour; impaired strength and spirits; remitting fever; and a hard and tumid belly, with emaciated limbs, are amongst the more constant symptoms attending, at one period or other of the disease.

THIS being a glandular complaint, not only are the glands of the mesentery affected, but I have found those of other parts, and especially of the lungs, in a very morbid state before any of those symptoms of inflammation have been noticed, which are constantly met with, in similar cases, in older subjects\*.

## CHILDREN

\* In examining the viscera of more than one infant of only a few months old, I have found tubercles, and even purulent matter in the lungs, which have not been preceded by any manifest symptoms of such mischief, and even where there has been no cough nor difficulty of breathing, until a few days before death, and then only so slight as to be scarcely noticed. In one instance, I found in some parts of the lungs  
tubercles

CHILDREN are liable to this fever till they become eight, or ten years old, it being often a consequence of the long continuance of almost any of the preceding complaints, especially those of the first-passages and dentition, as well as of the measles, and a few others; of which that from teething will be separately considered. Among the poor, it is too frequently owing to a coarse and unwholesome diet; indigestion at the stomach, and a consequent vitiated chyle, with infarction, or obstructions in some of the internal glands or lymphatics, being among the primary remote causes of the disease.

As prophylactics, or preventives, therefore, good air, exercise, gentle frictions, an easy dress, frequent washings of the body of young

tubercles as large as a nutmeg, and in others, clusters of smaller ones, (and particularly about the superior and back part of the mediastinum;) some of which were hard, and others full of matter.—Such appearances seem, therefore, to be common in all glandular diseases, to rickets, and similar disorders arising from cachochymy; GLYSSON having remarked, that he seldom examined the bodies of infants dying of rickets, without meeting with such appearances in the lungs.

children



children with soap and warm water\*, the cold-bath in older children, and especially a light and nutritious diet, with such mild aromatics as may assist digestion, are some of the principal and most efficacious means.

BUT when this disease is compleatly formed, it calls for the most powerful remedies; and such have happily succeeded in several instances, wherein formerly little hope had been entertained.

As I am constrained to pass over many less important symptoms occurring in the different stages of this long disease, especially such as arise from some peculiarity of habit; so will it be necessary to confine these observations to the more general plan of treatment, without particularly noticing a variety of occasional remedies, which such symptoms may at different periods require.

IN a general way, the principal indications are to remove the obstructions in the lymphatic system, and effect a resolution of the in-

\* This idea is as ancient as the time of *Hippocrates*, who strongly advises it.

durated glands of the mesentery; to carry off this viscid matter; and lastly, to strengthen the system, and establish a good digestion, as well by means of proper diet as by medicine. To accomplish these intentions, attenuants and deobstruents, purges and emetics, and tonic, or bracing remedies, must be had recourse to, in due turn.

AMONGST the first, and as general deobstruents, are mercurial and antimonial remedies, neutral salts, soap, steel, and the cicuta; to which, with propriety I think, may be added, electricity.

IN regard to the efficacy of mercury and steel in this disease, a vast crowd of testimonies appears among writers\*, in almost every part of *Europe*. And a very rational idea has been suggested on this head, by Mr. ROYER, that of administering mercury clyster-wise; inasmuch as the resolution of local and partial obstructions, does not so much require an exertion of the collected force of the system, as deriving all the influence of proper remedies

\* *White, Hartmann, Worlhof, Theden, Burchard, Baumè, Baumes, Roscen, Fouquet, &c.*

to the seat of the disease : an idea of late years pretty generally received, and in some instances, successfully adapted to the cure of scrofula, as well as some other chronical disorders.

CALOMEL is, perhaps, one of the fittest remedies of this class, and when administered by the mouth, may be combined with some purgative medicine, and given for several weeks, till there shall be some favourable change in the feel and size of the belly.

THE lightest preparations of steel are usually preferable, such as its tinctures, or the salt, or merely some chalybeate water ; which will act both as aperitives and tonics. Amongst antimonials, the kermes mineral is found by experience to be more generally useful than any other preparation.

THE Evacuants mentioned as proper in this disease, were emetics and purges ; to which may be added diaphoretics. The two former are more essentially necessary ; but must be adapted and carefully dosed, agreeably to the state of the bowels of the patient. As a purge, rhubarb and tartarised tartar are generally the safest and most effectual, and may be per-  
vered

vered in for the greatest length of time; or the composition which, in regard to many cases, has been deservedly extolled by Sir WILLIAM FORDYCE, rhubarb and polychrest salt; which, whenever mercury may not be preferred, should be exhibited daily for several weeks, and will sometimes restore the patient without recourse to any other means, when the disorder is not of long standing; being at once both a purge and an efficacious deobstruent.

As a Diaphoretic, sarsaparilla, or a more compound decoction of the woods; which may be taken together with any of the above mentioned remedies.

THE last means recommended were tonic, or bracing medicines, which can very rarely be dispensed with; since although the obstructions should actually be removed, the emaciated state to which the patient is generally reduced, peculiarly calls for bracing remedies, especially with a view to strengthen the stomach and alimentary canal, and promoting a good digestion; the only means of obtaining a bland and nutritious chyle, by which the body may be conserved in good health.

To

To this end, the bark, steel, the cold-bath, (the latter of which must not be attempted till the obstructions are removed) light bitters and aromatics, are the principal remedies; to one or more of which, recourse may be had, as the degree of remaining fever, and the state of the bowels may point out. To these may be joined daily frictions, especially of the belly, limbs, and spine; or the common soap-plaister, or one composed of ointment of marsh-mallows, gum ammoniac, and oil of chamomile, be applied over the whole belly: or the body may be covered all over (as directed by Mr. BAUMES) with sea-salt, reduced to a very fine powder.

It has been already hinted, that the diet ought to be of the lightest and most nutritious kind, and carefully adapted to the age and other circumstances of the child; who, if at a due age, ought in many instances to partake of light white meats, as well as vegetables, and plain jellies; but always avoiding fat and greasy aliments, pastry, and whatever may not be duly, as well as quickly digested, or will not form a bland and nutritious chyle,



however readily they may get out of the stomach.

THOUGH in some instances, merely purging with calomel or rhubarb, for a length of time, has been said to succeed, and in others, some one of the above remedies may be more adapted to the patient than the rest; yet in general, each of them will be useful, at one period or other of the complaint, and sometimes the union of several: but above all, purging is always the most essential to the cure of this dangerous disease. And though it is oftentimes attended with costiveness and a voracious appetite, it is, at others, accompanied with a loathing of all food, and frequent stools, which do not reduce the belly, but too often deter practitioners from the use of active, or repeated purges; without which, however, experience proves there can be no prospect of success, after the belly has once become enlarged.—I shall close these observations with offering the following form, which in a general way may be as suitable as any. It should be continued for a length of time, taking care that the bowels be kept properly open by it,

or

or by other remedies occasionally administered.

R. Calomelan. gr. j. ad ij.

Pulv. Ipecac. gr. fs. ad gr. j.

Zingiber. gr. vj.

Misce, ft. Pilulæ iv, cum quantitat. sufficient. vel. Conf. aromaticæ, vel Conf. opiatæ, ut alvi status postulet. Ë quibus sumatur j singulis aut alternis noctibus, vel omni nocte manè que. Post aliquod tempus addentur pulv. rad. columbæ grana octo vel decem.— Together with this pill, the cicuta will sometimes be very serviceable.

#### HECTIC FEVER, *and* MARASMUS.

NOT a few both of the preceding and following complaints are sometimes found to induce a confirmed hectic fever, and marasmus, or a wasting of the whole body, called by some writers atrophia lactentium; though it often comes on too late properly to admit of the name. I have nothing new, indeed, to offer on this disease when it seems to be far

advanced, unless it be by way of encouragement to hope for a better issue in the hectic fever, under certain circumstances, than we are wont to expect.

THIS fever, as it is apt to arise from other complaints, is very often owing to their having been imprudently treated, or imperfectly cured, especially by suppressing some eruption or discharge from the skin, or incautiously stopping a purging, during the time of teething. In such cases, and, indeed, whenever the hectic fever is of some standing, the mesenteric glands become indurated, greatly increased in size, and often suppurate, the belly getting large, though the limbs and other parts become emaciated; which state has been considered in the former chapter, and has been shewn to be curable, or otherwise, according to the degree of induration, and the length of time it has existed. But there is sometimes a threatening appearance of hectic fever, where, nevertheless, nature effects a salutary and wonderful change, and will restore the emaciated infant as from the very jaws of death. And this, indeed, is often the work only of nature,  
art,

art doing no more than superintending, and preventing her being counteracted by the use of improper medicines, or diet.

NATURE alone will, indeed, oftentimes effect wonders for infants, and far beyond any thing to be expected in adults, if she be not officiously counteracted. And the reason is obvious; it being well observed by a great man, and a good physician\*, lately deceased, that “there is, in truth, a greater luxuriancy of life and health in infancy, than in any other period in life. Infants, it is acknowledged, are more delicately sensible to injury, than those advanced in life; but, to compensate this, their fibres and vessels are more capable of distension, their whole system is more flexible, their fluids are less acrid, and less disposed to putrescence; they bear all evacuations more easily, except that of blood; and, which is an important circumstance in their favour, they never suffer from the terrors of a distracted imagination. Their spirits are lively and equal; they quickly forget their past suf-

\* DR. GREGORY—*Comparative view of the State and Faculties of Man with those of the animal World.* 1785.

ferings, and never anticipate the future. In consequence of these advantages, children recover from diseases, under such unfavourable symptoms as are never survived by adults. If they waste more quickly under sickness, their recovery from it is quick in proportion, and generally more compleat than in older people ; as diseases seldom leave those baneful effects on their constitutions, so frequent in adults. In short, a physician ought scarce ever to despair of a child's life, while it continues to breathe."—In further support of this sentiment it may be observed, that their complaints are not often attended with acute fever like those of adults, which however salutary in some instances, is more commonly disposed rather to break up the system, than to rectify the machine.

THE above mentioned salutary turns in the true hectic fever, as far as I have observed, are chiefly in that species of it arising from worms, or teething ; and in which I have known recoveries after hope had long been given up, and all attempts been laid aside. There is, indeed, an atrophy, or universal decay in infants, for want of the breast, or  
from



from the unfuitableness of it, (which is the true atrophía lactentium) or of whatever else may be the child's ordinary food, (as I shall instance in another place;) but this is not usually attended with fever, and is to be cured merely by making that change, which the nature of the different occasions points out. HARRIS recounts some remarkable recoveries in what he calls the atrophía verminosa, (or worm-hectic,) and attributes the cures to the free use of the hydrargyrus cum sulphure, carefully prepared: but I have seen none so marvellous as in the atrophía dententium, or tooth-atrophy. In this, I have known children after being reduced by purging, and other complaints, lying for three months together in the cradle, scarcely fit to be moved, with continual fever, flushed cheeks, emaciated countenance and limbs, a large belly, incessant cough, and almost without taking any nourishment, recover, as it were in a few days, upon unexpectedly cutting half a dozen teeth.

AFTER what I have said on this fever, it will not be expected I should offer much on the head of medicines; I shall therefore only ob-

serve, that the chief object in this advanced stage of the disease is an attention to the state of the bowels. This will be found to vary frequently; sometimes calling for restraining, and at others, opening remedies. With this view, SYDENHAM's rhubarb-beer† is a very good medicine, as also the mixture recommended by BOERHAAVE\* (when acidity may prevail;) and purging with mercury, if that has not already been done, should even now be attempted, since children in this state will often bear stronger doses of purging medicines, and more frequently repeated, than under any other circumstances.—Attention, likewise, should be paid to the diet, which ought chiefly to be of milk, rice, semolina, and such like,

† Take of choice rhubarb sliced, two drams; let it be put into a glass bottle, well stopped, with a quart of small-beer, or any other liquor the child may make use of. This medicated beer is to be his ordinary drink. When this quantity is drank, a second, and a third quart of beer may be poured on, as before; after which the rhubarb will commonly have lost its virtue. Should the beer first poured on be too much impregnated with rhubarb, and purge too much, another pint may be added presently after the first is drank up.

\* Page 135.

with

with light puddings ; but above all, children should enjoy plenty of fresh air, and take as much exercise as their degree of debility may allow of.

IN Dr. ARMSTRONG'S second edition, is a pretty long chapter on the hectic fever of teething children, wherein several medicines are prescribed, which the doctor apprehends may be very serviceable early in the disease. He speaks of it as a very common complaint, beginning like other fevers, and gradually becoming remitting ; then a slow continual fever, and terminating in a fatal hectic. Dr. BUTTER likewise expresses himself much in the like way, in an accurate account he has given of a fever that frequently made its appearance, as it should seem, in *Derbyshire*, which he terms the infantile remittent fever.

It is very probable, that a fever of the description given by Dr. ARMSTRONG may be common among paupers, relieved at dispensaries, and may deserve such a name, but, I believe, it will be rarely met with in higher ranks of life ; and if so, perhaps, that ought to have been intimated in a popular work. It seems to me, (and both Dr. BUTTER, and  
Dr.

Dr. ARMSTRONG, indeed, say as much) to arise from improper food and nursing, joined with crudities and a costive state of the bowels, and is, therefore, very much the offspring of neglect. When advice is sought for in proper time, it, accordingly, appears to be nothing more than the common fever I have described, arising from a foul state of the bowels, and is easily cured by such medicines as are best calculated to clear the first-passages. Should this, however, be neglected, it may degenerate into a continual fever; but it is not even then peculiar to the age Dr. ARMSTRONG has specified, nor, by any means, the common hectic fever of dentition. At this period, indeed, children call for more exercise, air, and general attention than common people can procure for them; it is, therefore, not to be wondered at, if neglected and costive, they should at this time fall into slow fevers, whether aggravated, or not, by the shooting of their teeth.

FEBRIS SCARLATINA—SCARLET-FEVER, WITH,  
*or WITHOUT* ULCERATION *of the* THROAT.

WHENEVER the Scarlet-fever becomes epidemic among adults, children rarely fail being attacked by it, in great numbers, and frequently sink under it. It is, indeed, rather a child's disease, and very contagious amongst them, but is not often communicated from them to adults. It has engaged the pen of the most able physicians, and has lately been accurately arranged by Dr. PERKINS: it is therefore well understood in this day, at least in the metropolis, and needs only on this occasion, to be adverted to as one very incident to children, and its most approved method of treatment briefly pointed out.

THE scarlet-fever with ulcerated throat has, perhaps, been distinguished in too refined a manner, by some writers, into the scarlet-fever with malignant ulcerated throat, and the malignant sore throat with efflorescence, or redness, on the skin. But such distinction, it is apprehended, is needless, since the experienced



perienced practitioner will always be guided by the degree of tendency in the system either to an inflammatory or putrid diathesis; and the less experienced will only be perplexed by multiplied distinctions.

THE mildest species of scarlatina anginosa should, however, be carefully distinguished from the true inflammatory affection of the tonsils, which the angina maligna will sometimes resemble in its first stages: but the genuine marks of the two diseases, and the cast of the epidemics reigning at the time, will direct the attentive practitioner; who will in less certain cases, take a middle course in his method of treatment, till the characteristic symptoms of either shall become more evident.

THERE is, however, a scarlet-fever that is not attended with any affection of the throat, and was long ago described by SYDENHAM\*, though not much insisted upon by later writers, which is attended with a harder pulse, and other symptoms of an inflammatory disposition, but nevertheless, in every instance that I have met with, calls for the same ge-

\* See also WITHERING and CULLEN.

neral treatment, only more cautiously adapting the necessary cordials and tonics to the degree of fever, especially in the commencement of the complaint.

THE febris scarlatina of every species begins with the common symptoms of fever, often with languor and disposition to fainting, sickness, a quick pulse, and pain in the head. The eyes are often inflamed, and where the throat is affected, there is frequently a stiffness of the muscles of the neck very early in the disease, which is soon followed by some difficulty in swallowing. The affection of the neck should be carefully inquired into, especially in younger children; the soreness of the throat being sometimes not complained of in the most severe attacks of the disease, until but little prospect remains of any mode of treatment being attended with success. The fever generally increases in the evening, and is often attended with transient fits of delirium; but some remission takes place towards morning, with sweating; and on the second, or third day the efflorescence appears on the skin, and generally first on the face, neck, and breast.

At this time, the patient complains much of pain in the head ; is comatose or very restless, and is at times delirious ; the tongue is in the beginning very white and dry, afterwards becomes foul, and then of a florid red. About the fifth day, there is usually a remission of fever, and the eruption then beginning to scale off, disappears about the seventh. If the disease has been violent, the patient is about seven days more in a low state ; and it is oftentimes a fortnight longer before he recovers his strength and spirits, and in some cases, is distressed with foul abscesses on the outside of the neck.

THE limits of this work allow me only to observe, that the method of cure being directed to the two indications of the general diathesis, and the affection of the throat, the nature and extent of these must ever be kept in view, and the system be duly supported. Should the body be costive at the time of the attack, an opening medicine should be given previous to the administering of bark or cordials. The throat should be often gargled, or rather syringed, with mucilaginous infusions or decoctions, rendered more or less stimulant ;

lant ; such as the compound decoction of barley with honey of roses, warmed with the compound spirit of ammonia, tincture of myrrhe, or a decoction of snake-root, or other such like preparations : though the quality of the gargle is, perhaps, of far less importance, than its being frequently made use of, which is absolutely necessary, especially in young children, in order to keep the mouth tolerably clean ; otherwise the difficulty of deglutition will be greatly increased. On this account, the patient ought also to wash his mouth previously to taking his medicines or drinks.

THIS fever, especially when epidemic, being almost constantly of a low type, the physician must not trust to saline draughts, or other medicines of that class, without the addition of the aromatic confection, snake-root, or the bark, in one form or other. A moderate quantity of wine likewise, according to the age and other circumstances of the patient, should be given with the food, which should consist of whey, caudle, and such like thin and nutritious aliments ; with plenty of barley water, or gruel, with a view to promote perspiration.

SHOULD

SHOULD the affection of the throat, therefore, be evidently inflammatory, or should a case occur where the fever may seem to be of that kind, (which may be better ascertained by the hardness of the pulse than any other symptom) it will very rarely bear bleeding, even in the beginning of the disease; as symptoms of debility generally attend in some period of the scarlet-fever, and will allow only of that middle course of treatment, hinted above.

IN a general way, a cordial plan is required throughout the disease, and where the throat is much affected, either with sloughs, or total blackness, the bark is indispensably necessary, howsoever thick and florid the rash, or howsoever hot and dry the skin may be; the bark, as it were, extinguishing the fever in the milder species, above every other remedy, and in the more malignant it supports the system, till the regular stages of the fever are accomplished, and a perfect crisis is formed. Young children take it very well, especially the soft extract, dissolved in a strong decoction. Should it be disposed to purge the child, a little of the spirit of cinnamon, or a drop or two of tincture of opium should be added to it;



it; or if the child, on the other hand, should be two or three days without a stool, a laxative clyster should be injected. Where delirium attends, a few drops of laudanum are often very serviceable. If there is much external swelling about the neck, blisters to the part are frequently very useful.—Even after the efflorescence has dried off kindly, an appearance resembling the true gangrene has sometimes seized the whole palatum molle, and the fever has been rekindled; but the parts recover their natural appearance after a few days, without any eschar being thrown off. In some foreign parts, particularly *Sweden*, convalescents from this fever are many of them seized with a partial, and some, a more general anasarca, which often proves fatal. Whether this be the natural course of the disease, or the consequence of improper treatment may be doubted, as their best physicians seem to consider it too much of a kind with the measles, and therefore may direct too cooling a regimen, and medicines.

## MILIARY-FEVER.

I SHALL be brief on this complaint, which does not seem to be so strictly a disorder of young children as of adults, unless from contagion ; though I have seen one or more instances of it, where no other person in the family has been so affected, and without its spreading to any other.

THE eruption is preceded by the usual symptoms of fever, together with much itching of the skin, and a very profuse perspiration ; which, however, procures no remission of the fever, until the eruption takes place, which is at the latest on the third or fourth day. It very much resembles the measles, but is a little elevated above the skin, giving it a very rough feel. It is sometimes intermixed, from the beginning, with very small pimples of a pellucid appearance, called crystallines ; which on the other hand, often do not appear for a day or two afterwards, and come out in successive crops, especially, if the child be kept over-hot. Some of the red eruptions are often  
larger

larger than others, and resemble those in the scarlet fever, with which the miliary rash is also sometimes thought to be mixed, in seasons when eruptive complaints are very rife.

PREVIOUS to the eruption, as well as some time afterwards, the patient is usually very thirsty, is hot and cold, by fits, and the breathing is short and difficult. The urine is high-coloured, there is a slight delirium, and sometimes a sore throat, especially where the eruption is broad and very florid.

CHILDREN generally revive as the rash comes out freely; but unless the complaint be very slight, the fever is rekindled, and they acquire no appetite for food until the eruption begins to turn dry.

THIS fever being of the low kind, is attended with great languor, and calls for support; on which account both the medicines and diet should be of the cordial kind. White-wine whey, and wine in the panada and sago, in proportion to the degree of debility, are generally necessary even for children of only a year or two old. The saline draught with confect. aromatica, and camphorated mixture, is a good general medicine; and if the symp-

276 CYNANCHE PAROTIDEA, *or* MUMPS.

toms are more aggravated, the bark, volatile alkali, and the compound spirit of vitriolic ether: blisters also are often very useful. A stool should be procured once in two days by means of a clyster, or a little rhubarb; and plenty of drink be allowed, which may be lightly acidulated, and at times taken cool. The chamber should be kept airy, but the child screened from the wind, and be confined to the bed, until the rash disappears.

If on the rash drying away, which in the milder species, is in three or four days, no fresh eruption should take place, the appetite and spirits soon return; and only a little rhubarb, or other gentle laxative is required, with the usual cautions in regard to diet, so necessary for every convalescent, and especially children, who have no discretion of their own.

CYNANCHE PAROTIDEA, *or* MUMPS.

THIS is a tumor of the neck and throat, giving that peculiar cast of countenance from which the complaint has acquired the English name. It is usually only a slight disorder in children,

children, but as it advances, the skin becomes inflamed, putting on a light damask-rose colour; but the parts very rarely suppurate, which is the more remarkable, as the disorder seems to be seated in the cellular or adipose membrane. This, however, does sometimes happen, but the abscess always heals kindly.

It is a complaint rather of young people than of infants; but frequently attacks children of five or six years of age. It is certainly contagious, and is often an epidemic disease. It begins with the common symptoms of fever, which are usually slight, but the tongue is frequently covered with thick fur, or is very white. The patient complains early of a stiffness and pain of the neck, and generally the next day of a soreness of the throat; but this seems oftentimes to be merely symptomatic, the tonsils being rarely inflamed. At this time, a fulness of the neck may be discovered, which gradually extends to the throat, and the parts become tender to the touch, and in some instances, the pain is exceedingly great, and recurs suddenly with almost regular intervals. The tumor generally



continues to increase for two or three days, and then as gradually subsides.

IN general, very little medical treatment is required, it being sufficient to confine the patient to the house; at most, to give night and morning a few grains of the compound powder of contrayerva, with, or without a small proportion of nitre, and to procure a stool once in twenty-four hours. But should an unusual degree of fever attend, as is more common in such as are advancing towards puberty, bleeding will be found necessary in the beginning, and the patient should be kept in bed for the first or second day, and take a saline draught with nitre, once in six or eight hours. On the other hand, should it be attended with any uncommon languor, from eight to fifteen grains of the aromatic confection, according to the age of the patient, may be taken instead of the remedies before mentioned. When the swelling is thoroughly subsided, two or three gentle laxatives may be administered at convenient intervals.

IN a few instances, after suppuration has taken place, and the sores are healed up, a  
hardness

hardness of the parotid and maxillary glands remains, which is usually soon dispersed by rubbing in a little mercurial ointment, or sometimes by only anointing with the common linimentum ammoniæ. Should it, however, prove tedious, a few doses of calomel and common laxatives should be exhibited, at proper intervals.

IN adult males, or such as are growing up to manhood, the tumor of the neck has sometimes been found to subside very suddenly without any abatement of the fever, and then the testes have been as suddenly inflamed; which is attended with more pain and fever than the swelling of the neck, and is cured more slowly: upon this metastasis, bleeding is always proper, though these parts have never been found to suppurate.

A TRANSLATION from this part again, is sometimes very suddenly effected, and the irritation then generally falls upon the brain; and the worst consequences are justly to be apprehended. Every thing necessary and proper for the true phrenitis is then speedily to be had recourse to, and the tumefaction invited to the parts it has left; and until that

can be effected the patient will be in great danger. Such a metastasis is much more common in *North America* than it is amongst us.

### HYDROCEPHALUS, *or* WATERY-HEAD.

THIS complaint is distinguished into the *external*, and *internal*; in the former, the water lies upon the surface of the brain, over the pia mater, but in the latter it is seated much deeper, within the ventricles. The *external* makes its appearance at, or it is said, in some instances, soon after birth; though it is certain, that children with hydrocephalus externus are more commonly still-born. I have, nevertheless, known three arrive to full ten years of age\*, who were then unable to walk, or even to sit upright in a chair. From a very recent instance, however, I have learned, that when no symp-

\* See *Medical Communications*, vol. 1, in which there is mention of two people then living, one of whom had attained the age of 29, and the other, 45 years: the former did not appear to have any enlargement of the head for three weeks after birth.

toms of hydrocephalus appear at the birth, although the enlargement should be manifest very soon afterwards, and increase rapidly, the water is *sometimes*, at least, contained within the ventricles of the brain †: and from the circumstance of no children living long with an internal hydrocephalus, but such whose heads enlarge within a few months after birth, I should suspect the disorder has, in such instances, taken place in the womb. The fetus, at this time, enjoying only a kind of vegetative life, may come to maturity under such a disease; various instances being met with, in which full grown fetuses have had neither head, nor heart, nor lungs. Accustomed to the above mentioned disease, we may presume such infants more likely to live for a certain time with water in the ventricles,

† In the *Medical Journal*, vol. 2. p. 1, an instance is related by Mr. E. FORD, of a child seized with symptoms of water in the head, at the age of nine years, who lived eleven months afterwards; during the last eight of which he was unable to stand upon his feet. After death, the sutures were found to be separated to a considerable degree, the ventricles containing eleven ounces of water, but there was no water exterior to the brain.

than

than those in whom the disease is supposed to take place, suddenly, after birth.

IN the instance alluded to, the child's head began to be sensibly enlarged when the infant was about four months old, and the child lived to the fifth year, unable to walk, or even to support its head. Upon a careful examination of the parts after death, the water, to the quantity of three pints, as I am informed by the surgeon, was evidently contained within the ventricles, which were so stretched as to compress the brain in such a manner, that it appeared only like a smooth thick membrane within the dura mater; and of all the solid contents of the skull, scarce any thing, but the cerebellum remained. TULPIUS, HILDANUS and VESALIUS have noticed the like in children from two to five years of age; and it must therefore be still more likely to happen where the hydrocephalus internus has taken place in the fetus in utero, when the brain is much more tender.\*

THE

\* See MORTGAGNI *Lib. 1. Epif. 12.*—Dr. WHYTT of *Dublin* mentions three instances of the same kind, in which the brain was so compressed by the great quantity of water



THE *external hydrocephalus*, at whatever period it may commence, has always been esteemed a fatal, as well as most distressing complaint; but I have been informed, that where the disorder has not been very manifest at the birth, blisters on the head have sensibly diminished the bulk. These should be applied, successively, to different parts, especially along the top of the head, in the course of the longitudinal sinus, so as to keep up a constant discharge; which from the good effects in two or three cases, when had recourse to in good time, may possibly, in some instances, effect a perfect cure: at least, the advantages already observed are sufficient to justify the attempt, in a disorder hitherto esteemed incurable.

OF the *internal* watery-head it may be proper to treat more largely, though I have little really new to offer in regard to the cure.

THIS melancholy disorder seems not to have been distinctly known to the ancients, though there can be little doubt, it must often have been met with; but the want of those frequent

water within the ventricles, as to put on the appearance of only a small gland.

examinations

examinations of dead bodies which the moderns have made, deprived them of those opportunities of distinguishing this disease from affections of the head arising from other causes. HIERONYMUS MERCURIALIS\*, who wrote in the beginning of the sixteenth century, was perhaps the first who mentions the disease as having its seat in the ventricles. WEPFER also just says, that water has been found in the cavities of the brain†. BOERHAAVE, PETIT, and others have likewise spoken of it; but no author, I believe, described it at all accurately before Dr. WHYTT, who wrote expressly on the internal watery-head, anno 1768.

It usually takes place between the age of two and ten years, rarely earlier, but sometimes later; is a like melancholy complaint with the former, and the method of treatment, not yet well established; and as it can scarcely be ascertained whether any have recovered from it, (the certainty of its existence rarely being known but by examination after death) it is not likely, that a very determined, and

\* Opuscula aurea, Lib. de Morbis Puerorum.

† Histor. Apoplecticorum.

successful treatment will shortly be settled. It may, probably, arise from falls and blows on the head, or, it is supposed, from an original laxity of the brain; from scirrhus tumours and excrescences within the skull; a watery state of the blood, or a lingering illness. It, possibly, may sometimes be owing to pressure on the brain and fulness of the vascular system from other causes, as conceived by Dr. QUIN. I have, at least, lately met with one case, in which there were all the usual symptoms of water in the ventricles, and an eminent physician whom I met on the occasion was fully of that opinion. But upon examining the head thirty-six hours after death, a great number of sharp points of bone were found, and especially of the spinal process of the os frontis, which was most uncommonly long and sharp. The vessels were all found very turgid with blood, and there were light, flakey appearances on the pia mater, similar to those found on the peritoneum, pleura, and other membranous parts in a state of inflammation. In this case, only half an ounce of water was found in the ventricles. A similar remark is  
made

made by Mr. EDWARD FORD\*, who observes, that more remote causes may be an inflammation of the vessels of the pia mater, which may owe its origin to the measles, small-pox, scrofula and other complaints; which may affect the brain in the same manner they do the mesenteric and other glands. As the disease may originate from such different causes, there can be no doubt that it may sometimes be a chronic disease, and its appearances very insidious. It appears, likewise, to be a family complaint in some instances; for I have known six children, born of the same parents, die successively of it at the age of two years, five of whom were afterwards opened.

THE attack is sometimes very sudden; but the complaint more commonly begins with the appearances of slow fever, especially in older children, with debility of the arms, and pains in the limbs; and frequently in the upper part of the neck. After a while, the child is suddenly seized with a pain in the head, and generally in the fore part, and retches once or

\* *London Medical Journal*, Vol. 2, part 1.

more ; it becomes heavy and dull ; can bear no posture but that of lying horizontally ; the pulse becomes irregular, but usually very slow : in the progress of the disease the faculties and senses are impaired, and the eyes are offended by the light ; the patient sees objects double, and becomes delirious. As the disease advances, the pulse grows frequent, the cheeks become flushed, the pupils of the eyes are dilated, the stools and urine come away involuntarily, and the patient lies sleeping, or is convulsed.

IN the youngest subjects, I have known it begin with a cough, quick pulse, and difficulty of breathing, attended with circumscribed flushed cheeks as in teething, recurring on every little exertion, with continual fever and costiveness ; and sometimes a discharge from the nose and eyes.

THOUGH it is sometimes a very short disease, and at others, of many months standing, it seems always to be divided into three stages \* ; which are best distinguished by the state of

\* See a Treatise on the Watery-Head by Dr. CHARLES WILLIAM QUIN. *Anno* 1790.



the pulse. In the first, the pulse is always quick as in other complaints attended with fever; in the second, it is slow, irregular, and often intermitting; and in the third it becomes again very quick, and usually regular. The urine frequently deposits a sediment of a light consistence, and white colour; and the breath has an offensive and sickly smell, especially in the last stage.

SYMPTOMS indicative of the disease in very young subjects, are, a hand often put to the head, or lifted upwards, and waving about; vomitings; costiveness; expression of anxiety, and dislike to be moved; at other times, an unmeaning look, and marks of insensibility; the fingers often clinched, and hands tumid; drowsiness; picking of the nose, and grinding of the teeth during sleep, as in the case of worms: the eyes are in some cases impatient of light, in others, vision is so imperfect, that the child does not regard any objects however close to them; and before this period, one or both the eyes are in many instances turned towards the nose. The pupils are often not dilated till near the close of the disease, and such young patients sometimes  
hear

hear and comprehend, and take food to the last, and die suddenly upon the decline of the febrile symptoms, when they have been thought to be recovering. These and other symptoms, however, laid down as indications of water in the brain, are, in some degree, common to other diseases of children, especially the dilatation of the pupil, and sleepiness, in fevers arising from foul bowels; which, I am persuaded, are sometimes mistaken for the fever of hydrocephalus. In such cases, some children have been erroneously thought to have recovered from this disease, especially if calomel has been administered, though with another view, while others have perished from improper treatment, and mistaking their complaint. Perhaps, the most decided symptoms early in the disease (at which time it is of the most importance to ascertain it) are, an inclination to lie on the back, an unwillingness to be moved, and an increase of pain in the head upon being raised from a supine to an erect posture: but especially an almost constant drowsiness, and a tendency to fall asleep, after being roused by being lifted up, or otherwise disturbed. Sometimes, however,

neither these, nor other decided symptoms are found to take place until the second stage of the disease.—Children with large heads do not seem to be more subject to this disease than other children.

FROM what has been now advanced, it is difficult to say if medicines are so often successful as hath sometimes been imagined; for when a patient recovers, it may be suspected he has not had the true disease. Practitioners seem chiefly to have depended on repeated bleedings; purges with jalap, or calomel; blisters to the neck, or head, diuretic medicines, and the external use of mercurial ointment. A large bleeding early in the disease I have thought very beneficial, especially in children of a robust habit. The use of sternutatories, as the compound powder of asarum, or white helebore, have likewise been recommended by some experienced practitioners; and, possibly, with some little prospect of advantage, some children having recovered in consequence of a discharge of a thin fluid by the nostrils, as Dr. HARVEY lately acquainted me he had seen in two instances. With a view to promoting absorption, electricity

tricity has likewise been recommended : to all which I would add the application of a narrow caustic upon the head, along the whole course of the longitudinal sinus, instead of trusting to a small blister on the crown.

THOUGH I have made mention of mercury, I cannot say I have seen any decidedly good effects from its use, either as a purge or an alterative ; administered either externally or internally, though I have had recourse to it very early as well as late in the disease. Should the use of it, however, be determined upon, in whichever way it may be advised, it should be assisted by diuretics. Calomel is probably the fittest preparation for internal use, and has been thought to be administered with success in the following form, to infants of two or three years of age.

R. Confect. Aromat. ʒj.

Hydrargyr. purif. ʒj.

Simul terantur donec globuli visum fugerint.

R. Massæ suprapræscriptæ ʒß.

Pulver. Scillæ gr. ʒ.

Aquæ Menth. sativæ ʒß.

Spir. Æther. nitrosi gtts. x.

Misce,

Fiat haustus, bis terve in die sumendus.

THE external application of mercury has, however, been more generally preferred, as acting more powerfully on the system, and creating less disorder in the bowels. Some physicians have directed it to be used both externally and internally; and it may be so made use of very freely, as a salivation is not very easily raised in young children, especially in this disease.

THOUGH I have said that I cannot boast of success in the recourse I have had to mercury, it is proper, however, to observe, that it has been strongly recommended by Drs. CARMICHAEL SMITH, DOBSON, JOHN HUNTER, HAYGARTH, MOSELY, and Dr. ARMSTRONG; but I am informed by other physicians of eminence, that they have not been so successful in the use of it; and some good arguments have lately been advanced against an indiscriminate recourse to it, by Dr. JOHN WARREN; who advises trial to be made of emetics.

As I am always happy in the opportunity of reflecting any light upon obscure diseases, I shall close these means of cure with some observations from Drs. PERCIVAL\* and TEMPLE,

\* See *Medical Facts*, vol. I.



as well as from Dr. RUSH, whose works came too late to hand to allow of larger extracts.

THE latter is decidedly of opinion, that the commencement of this disease is always truly inflammatory, being what he calls a phrenicula, or diminutive species of phrenitis, and that it should be treated boldly as an acute disease: the aqueous effusion, he is persuaded, being the mere effect of inflammation; though the tender structure of the brain, during infancy, may render that viscus more liable to such a consequence than it is at a more advanced age.

Dr. RUSH speaks of great success in treating the complaint agreeably to this idea, and advises;

1st. Bleeding, which in some cases he directs to be repeated several times in the first stage of the disease.

The second remedy in this stage is, purging, plentifully and repeatedly; to which he was first encouraged from the benefit derived from that remedy in palsies, and other cases of congestion in the brain.

3d. Blisters to the head, neck and temples, for the relief of the pain in the head; which

are, therefore, proper in any stage of the disorder.

4th. With the like view, linen cloths, dipped in cold vinegar, or ice-water, and applied to the forehead.

5th. Mercury, particularly calomel, as a purge, in any stage; but mercury in larger quantities, as a stimulant, as soon as may be after the inflammatory action of the system is sufficiently subdued by previous evacuations, or otherwise. Bark, wine and opium, he says, promise success only in the last stage of the disorder, assisted by mercury, where the state of the system may call for them.

If we may place much confidence in these observations of Dr. RUSH, whose theory appears to be supported by plausible reasoning and the history of several successful cases, some further light seems to be thrown upon this dangerous disease; and the indications for the antiphlogistic plan, particularly bleeding, and the proper use of mercury, pointed out with somewhat more precision than hitherto.

THE intentions of cure as laid down by Dr. PERCIVAL are very similar to the foregoing, being calculated, he says,

To

To mitigate the pain and spasm ;  
To promote absorption ; and  
To increase the serous excretions.

WHEN the pain and spasms are considerable, he advises opiates in large and repeated doses, unless there be coma, and in that case, he substitutes musk combined with sal cornu cervi. He directs repeated blisters to the head, and recommends joining the digitalis with opium and calomel ; though he is inclined to think, that the good effects produced by this composition are rather attributable to the combination of the opium and calomel, than to the digitalis. If the mercury be disposed to run off by the intestines, he guards it further by opium.

DR. TEMPLE\* having observed, that the do-ronicum germanicum administered in some paralytic affections was disposed to excite the cuticular vessels in the head, in a very extraordinary manner, producing a copious sweating of the part, was led to advise it in hydrocephalus internus ; and in a recent instance with marked success, in consequence of an abundant perspiration from the head. Opium and calomel were, indeed, joined with it, but as

\* See his *Practice of Physic*.

it is not known, he says, that such effects have been produced from the combination of mercury and opium\*, he concludes, that the do-ronicum had a considerable share in them.

As a prophylactic, or preventive, where several children in a family may have suffered by it, some writers have advised a caustic to be applied to the nape of the neck. And other physicians have thought, that the progress of the disease has been stopped, after threatening symptoms had taken place, by covering the whole crown of the head by a blister, and keeping the sore open for a year or more; of the good effects of which, I think, I have seen one instance.

GENERAL OBSERVATIONS *on the* SMALL-POX *and*  
MEASLES, *with* CURSORY REMARKS *on* INOCU-  
LATION.

IT will scarcely be expected, that I should treat distinctly of these diseases in their several varieties, being in no respect peculiar to

\* See the foregoing page,

childhood, nor of a nature to demand a full investigation in a work of this kind; and are noticed only to point out a few principal indications, and to introduce some practical observations in regard to Inoculation.

THOUGH the SMALL-POX is a complaint so incident to the early part of life, that comparatively few children living to the age of eight or ten years, are found to escape it, yet it is not so readily communicated, in the state of *early infancy*, as hath been generally imagined, unless by immediate infection\*.

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\* Some evidence of the propriety of this assertion may be gathered from the consideration of there always existing a far greater number of infants within the month, than of children of any other age; and for the like reason, a greater number of those under a year old, than of such as are two or three years of age. For it is evident, that every infant dying at the earlier periods, must reduce the number to which those of the more advanced ages might otherwise have amounted; whereas, all the children who arrive to two or three years of age, having been first infants in the month, and of one year old, the number of the latter periods is not diminished by the death of those of a more advanced age. Now, every one knows how very few infants he has heard of who have received the small-pox, naturally, in the month, or even  
within



THE poor furnish frequent instances of the truth of this observation. I have attended where children born in an air, saturated as it were, with the miasma of this disease, (as well as of the measles) and even lying continually in a cradle in which another child has died a few days before, have, nevertheless, escaped the disease, and sometimes, when they have slept together in the same bed with one loaded with it. Hence it appears, that highly tainted air, and even personal contact,

within the year ; though fewer of these are inoculated than of children above a year old. And this exemption from the natural small-pox does not seem to arise from their not being exposed to the ordinary means of contagion, especially among the middling and lower ranks of people who form the bulk of mankind ; since the medical men who usually attend such lying-in rooms, are very much in the habit both of visiting the small-pox, and of inoculating, all the year round : and even in the higher ranks of life, if gentlemen in the general practice of physic happen to be consulted, the chance of their visiting at the same time infected patients, is not so small as may be imagined ; not to speak of the probability there is, that some one of the numerous visitors, during the month, may by accident or otherwise, have been in some infected house in the course of the day in which their visits may be made.

are

are often insufficient to communicate the virus. Yet we know that infants are very easily infected, receiving the small-pox by inoculation as readily as adults ; though neither are at all times equally susceptible of it\*. Perhaps this latter circumstance may not always be sufficiently attended to ; the mode of inoculation being often blamed, when its failure may be owing to the indisposed habit of the child. Possibly, on this account, it may not be perfectly safe to urge it, at such a time ; at least, instances are not wanting, where twice introducing the virus having failed, an infant has had the disease very severely, and even fatally, upon its being repeated a third time.—In no other view, I imagine, can the repetition be

\* Dr. YOUNG inoculated several children at the Royal Infirmary at *Edinburgh* at about a week old ; yet in none of them could he perceive the infection to take place. And a respectable physician lately informed me, that he knew a young woman to be inoculated eight times in the course of thirty days, who also at the same time attended several children who had the small-pox from inoculation, and yet was not infected herself. She, nevertheless, caught that distemper about seven weeks afterwards, and died of a confluent sort.

accounted

accounted hazardous ; and this holds out encouragement to such as from any uncertainty in regard to infection, may wish to be inoculated once or more ; Dr. RICHARD DE HAUTEFIERCY\* having inoculated a young person every fortnight, for a whole year. The first of these operations communicated the disease, and the subsequent ones in no wise injured his health.

BUT in whatever way the small-pox or measles may take place, they are to be treated as in adults, with but little other difference than what every practitioner is well acquainted with, that of greater caution and tenderness ; as infants cannot bear the powerful antiphlogistic regimen and evacuations, often proper for the other†.

IT may just be observed, however, for the information of some readers, that in the mild distinct small-pox the eruption does not appear till the fourth day, inclusive from the attack ; but in the severe, confluent kind, on

\* *Nic. Rosen-von Rosenstein.*

† *Ex toto, non sic pueri, ut viri, curari debent. CELSUS. Lib. iii. cap. 7. p. 134.*

the third, and even sometimes early on the second day. In the former also, the fever and other complaints usually vanish upon the eruption appearing on the skin, whereas in the confluent, however it may abate for a short time, the fever is rekindled, and increases with the progress of the disease. There are likewise some peculiarities in regard to young children, both in the mode of attack, and in the symptoms attending the latter stage of the disease, which may be slightly noticed in this place. The vomiting, shivering, and pain in the back, and head, being rarely succeeded by a sweat in infants, and is far less common in all young children than adults, under any of their complaints, and is less commonly salutary, or critical. In the progress of the disease there is likewise as frequent a difference, children having usually a purging in the bad confluent sort, in the place of that salivation which usually appears in adults. These circumstances, as well as their tender age, will call for some little diversity in the treatment; with all which, however, it has been said, medical people are very well acquainted, and

and are alone adequate to the making proper discriminations in this complex disease.

IN regard to the MEASLES it needs only to be remarked, that not only ought children's bellies to be kept open throughout the disease, and cooling medicines, and diluting drinks be administered, but unless they are very young, they will bear and even require one or more bleedings, at any period of it when the symptoms indicate its propriety\*. And, indeed, the cure of the secondary fever, and cough,

\* In all cases of local inflammation, or tendency to it, topical bleedings should have the preference, especially if it be not necessary to take away a large quantity of blood, which it can rarely be in young children ; or if the operation be often repeated. In the present instance, therefore, if the child be very young, or very weak, it may be sufficient to draw off a little blood by leeches, from some part about the chest. But should it be designed only to lessen the quantity of the blood, they may be more conveniently applied to the leg, or arm, as advised by Dr. HAMILTON, as the child will be less exposed to taking cold during their application ; and if the leeches should not draw well, those parts can afterwards be commodiously immersed in warm water to promote the bleeding ; or a bandage may be easily applied to restrain it, if it should prove too profuse.

however



however long they may continue, will turn upon repeated bleedings, laxatives, and a total abstinence from wine, and all animal food.

I have now only to drop a word or two more on the subject of *Inoculation*, and principally, because parents are very apt to fall into great mistakes respecting the age, and circumstances most proper for this operation.

It is too common an opinion that a very young infant, sucking at the breast, is the fittest subject for inoculation, and medical people have some difficulty in persuading parents to the contrary. Children are then said to be clear from humours, their blood mild and balsamic, their food innocent, and they are free from all violent passions of the mind. But all these advantages may be counterbalanced by the delicacy of their frame, their disposition to spasm, and their inability to struggle with a severe attack of the disease, if it should chance to fall to their share. And such, indeed, are the facts: infants usually have the small-pox very lightly, whether taken naturally, or from inoculation, though in both there are a few instances of their expiring in a fit at the time of the eruption; and they seldom

dom get through the disease, if they are full, or it proves of the confluent, or malignant kind. And this furnishes a peculiar objection to inoculating infants at the breast, which arises from their necessarily lying so much on the arm of the mother, or the wet-nurse, especially in the night ; the heat exposing them to a much more copious eruption, than children who are weaned. This I have seen clearly exemplified in the instance of a child whose mother could suckle only with the right breast ; the consequence was, that the left side of the child was perfectly loaded with the eruption, (though the pock was of the distinct kind) whilst the other had only a moderate sprinkling. The child, however, sunk under the secondary fever at the end of five or six weeks, though turned of two years old ; the *only* child I have known to die of inoculation at so advanced an age. A similar instance is related by Mr. Moss ; who not being able to prevail on a young woman whom he had inoculated, to keep her feet (which were very cold) out of the warm ashes of a hearth-fire, at the time of the eruption, they were, in consequence, so loaded with it, as to appear  
one

one continued blister ; though the disease was very distinct, and went on favourably in other parts.

I AM aware that many children are inoculated very young, and even in the month, and generally with very good success ; but the frequency of this practice, among eminent surgeons, is owing to the urgent sollicitation of parents, and their fear of contagion. I cannot therefore avoid saying, that however few may die under inoculation, under any circumstances, the fact is, that the far greater proportion that I happen to have had an account of, is amongst infants under six months old. A remarkable proof of this disproportion appeared lately under a general inoculation at *Luton*, during the progress of a malignant small-pox, which carried off one half of those who were attacked by it in the natural way. In the midst of this fatality, twelve hundred and fifteen paupers were inoculated, through the humanity of the Hon<sup>ble</sup>. and Rev<sup>d</sup>. Mr. W<sup>M</sup>. STUART\*, many of whom refused all preparatory

\* See a Tract on *Malignant Fevers*, by the late Sir WILLIAM FORDYCE, 1790.

medicines, and were besides addicted to the use of strong liquors: nevertheless, out of the *twelve hundred and fifteen*, only *five* died—all of whom were infants under four months old. Seven hundred adult people of better condition, in the same neighbourhood, were inoculated a short time afterwards, and with the like good success with the former.

FROM this view of the matter, it is pretty evident, I think, that this operation ought, in general, to be postponed to a later period, which is pointed out by the child having cut all its first teeth. To which may be added the observation just made, that infants are not much disposed to take the small-pox naturally; and that more than fifty children die under the age of two years, of other complaints, to one that dies of the natural small-pox. Should it, however, be in the same house, or prevail in the neighbourhood, and the parents find it difficult to remove the child out of the way, it may run a less risk in being immediately inoculated, as that operation is now so well understood, and successfully conducted, than by taking the chance of escaping the infection, or of recovering from the disease, if  
it

it should happen to take place. I shall just observe, however, on this head, that the late PROFESSOR MONRO seems to recommend the use of a bath of water and juniper-berries, and fumigating the chamber with the juniper-tree, during the course of severe small-pox; which is said to have succeeded in eight or nine instances as a preventive.

THE inoculation of pregnant-women being, in certain instances, dangerous to the infant, it is presumed, that it cannot be totally foreign from the subject, to annex a caution on that head; it having until of late been generally imagined, that the child is not infected by the parent passing through the small-pox, whether from inoculation, or otherwise. It is, indeed, comparatively rare, that the unborn-fetus takes the disease, howsoever severely the mother may suffer by it; yet from a very accurate account of this matter lately published by Dr. PEARSON, the fact is established as the result of much experience and reflection, where the parent has been infected after the sixth month of gestation. Previous to that period, however, the fetus (whatever be the cause) has very seldom been known to



take the disease ; and later than that, it is presumed, few mothers would be inclined to submit to the operation, unless from some urgent necessity. The parent, it is added, is not in much additional danger from being inoculated in a state of pregnancy, unless the disease should prove considerably more severe than it is ever expected, from inoculation ; but when communicated to the fetus, the infant always dies.

IN regard to inoculation of the *Measles*, it may just be noticed, that Dr. FRANCIS HOME is said to have practised it, in several instances, with success, and that Dr. ROSENSTEIN seems to intimate the example having been followed in *Sweden*\*.

## CHICKEN-POX.

FOR the reason given in the former chapter, I shall be very brief on this head. The complaint, however, merits a few words, not only because more incident, perhaps, to chil-

\* Treatise on the *Diseases of Children*. 1771.

dren than to adults, but also that parents are often at a loss to distinguish it from the mild small-pox; which it sometimes exceeds in violence, and is now and then even attended with danger. This is, indeed, so uncommon, that the disease has been very seldom noticed by medical writers; and even Dr. HEBERDEN, who was among the first that obliged the public with a distinct account of it, says he never saw any person with so many as three hundred pustules over the whole body. Physicians, indeed, as he observes, are not often called to visit patients under a complaint usually so trifling, or a gentleman of his long and extensive practice, would have met with instances in which it must have appeared of more consequence, as will presently be noticed.

It is from this disparity, I apprehend, that this disorder is sometimes denominated the swine-pox, which is only a ranker species of the disease, in which the symptoms may run higher, as well as the pustules become much larger. In this case, I have known the head and face as much swollen as I have ever seen them in any distinct small-pox, however full, and the pustules containing a yellow, and

seemingly purulent matter, with highly inflamed bases, and exceedingly sore; and these have formed a complete mask on the face, after the turn, as is often seen in the small-pox. One such patient whom I was called to visit, was about sixteen years of age, of a plethoric habit, but very healthy; and what makes it very certain, that this complaint could not be the small-pox, is, that the young gentleman died of that disorder a twelve-month afterwards, and possibly owing to its being neglected in the beginning, from an idea that the former illness had really been the small-pox. The latter mistake arose from an improper answer having been then made to my inquiry after the day on which the eruption had first appeared, (as I was called to make him only one visit, when the pock was on the turn;) a mistake the young gentleman's mother had a perfect recollection of after I was gone, and of which I reminded her upon being called to visit her son in the small-pox, only the day before his death.

THIS case strongly verifies the remark of Dr. HEBERDEN, that this complaint can, in some instances, be distinguished from the small-

small-pox only by its quicker progress towards maturation, and the shorter duration of the pustules; a watery vesicle always appearing on the second or third day from the eruption, and the turn, at the furthest, taking place on the fifth.

THE Treatment of it differs nothing from that of the mild, distinct small-pox; but it more rarely calls for much attention, and only when a patient may have it very full.

## AGUE.

THIS is a complaint so well known, that it seems unnecessary here to enter minutely into a description of it. It is sufficient to say, that it consists of repeated cold and hot fits regularly succeeding each other, with one or more well-days between them; in which interval the sick passes a high-coloured urine, that deposits a red sediment.

It, perhaps, partakes more of a nervous affection than other fevers may do, and is known to be endemic in some flat marshy situations, but is most frequent in the spring

and fall of the year ; in the former of which it is generally easily cured, and is even sometimes salutary. Autumnal agues, on the other hand, especially in the country, and amongst very poor people who feed coarsely, will frequently continue a long time, and return again the next autumn ; whereby the constitution becomes considerably impaired. In such instances the legs are apt to swell, and more especially the belly, which becomes hard, particularly on the left side, and has been termed the ague-cake. This tumefaction, however, instead of being a bad sign, as might be suspected a priori, is a very favourable one, and indicates the recovery of the patient. This circumstance is noticed by SYDENHAM, and like other observations of that attentive practitioner, is a very just one, and was, doubtless, the result of his experience. The hardness is probably owing to an infarction of the spleen, and usually subsides in the course of a few months, especially upon the use of moderate exercise, and a generous diet. It may be prudent, however, to administer small doses of calomel, and afterwards light bitters, adding likewise chalybeates,



beates, if the habit of the patient seems to require them, and there are no symptoms of a morbid affection of the viscera.

It were needless to enter largely into the subject, and it is equally foreign from the present intention, to be more particular in regard to the cure of this oftentimes very troublesome complaint, as it would lead me further than would be compatible with the design of this work. Some notice of it, however, is taken because, though no more peculiar to children than the last mentioned diseases, yet it may be said, that there are comparatively very few children who have not suffered by it during the years usually passed at school.

THE ague, indeed, attacks every age, so that infants even under a year old are very liable to it, whenever it rages among adults. It is with a peculiar view to patients of the former class that the following directions are given, the bark being usually a specific for older children and grown people; to whom, however, it is generally proper first to administer a vomit, and one or more doses of physic.—The small-pox, whether taken naturally, or by inoculation, as well as other acute complaints

complaints has sometimes removed obstinate autumnal, and chronical agues.

IN a state of infancy, the ague is often owing to, or connected with a foul state of the bowels and obstruction of the gall-ducts, and is frequently accompanied with worms, or such a state of the alimentary canal as affords a proper nidus for them.

THE tertian, or more common ague, at this age generally yields to purges of the basilic powder, or calomel and rhubarb, given on the days between the fits, and small doses of Dr. JAMES'S powder on the return of the fever. Should this fail, a vomit should be administered an hour or two before the next cold fit is expected, if the powder should not already have had that effect.—A linen waistcoat with fine powder of bark quilted within it, may be worn by infants next their skin. But a more expeditious remedy is a large poultice of Peruvian bark, put between thin linen and applied warm to the region of the stomach, and renewed through the day as often as it may get cool\*.

\* See *Rosenstein* on the diseases of children, also *Med. Observ.* and *Inq.* vol. 2. p. 255.

IN older children, the common saline draught, taken once in six or eight hours, will frequently succeed, as will warm bitters, and medicines that promote and keep up perspiration. Crude salt ammoniac also in the dose of ten or twelve grains, for children of five or six years of age, has sometimes cured this troublesome complaint; but may not be proper for delicate constitutions. Myrrhe is a better remedy for such, given from four to eight grains, before, or during the cold-fit, and as much cream of tartar, every two or three hours, during the fever. Pepper, and likewise alum are common quack remedies, and may be frequently given with success at this age; the former from five to ten grains, the latter from three to five, joined with the like quantity of nutmeg, three or four times a day in the absence of the fever. Another good remedy is flowers of brimstone, given in the quantity of a table spoonful in a glass of brandy, before or during the cold-fit; this is a proper dose for adults, but I have never administered this medicine to children.

AMONGST popular remedies\*, is a tea-spoonful of white refin in fine powder, mixed with the like quantity of pounded loaf-sugar, taken a little before the cold-fit, and repeated afterwards night and morning. Poor people, or such as live in the country at a distance from medical help, may make trial of it with safety, and with as good prospect of success as any other remedy I know of, having found it successful even where large doses of the bark have failed. Such kind of remedies for this disease are numberless; I shall, however, mention another, which, though as anile as any, seems to have been very often successful, (as I have been informed by the late Dr. HUCK SAUNDERS, as well as others;) and is nothing more than the spider's web, rolled loosely up to the size of a child's marble, and washed down with a little warm wine and water, or chamomile tea, before the cold fit is expected: the child should then be put into a warm bed, and perspiration be encouraged. This may be done,

\* It is hoped, that a desire of enabling readers to assist their country poor, will be admitted as an apology for this and other similar passages met with in this work, especially where they refer to adults.

amongst other means, by fomentations to the pit of the stomach. A piece of bread, hot from the oven, and sprinkled with camphorated spirit, is not a contemptible one, in this and other complaints, where a speedy perspiration is wished for.

I SHALL close the list of remedies with the following from Dr. KIRKPATRICK, which is a very good one for patients no otherwise averse from the bark, than that the stomach will not bear it in large doses.

TAKE of fresh saffraſas bark, Virginia ſnake-root, roch-allum, nutmeg, calcined antimony, and ſalt of wormwood, of each one dram: to theſe, well rubbed together into a fine powder, add the weight of the whole of the beſt Peruvian bark; then add three or four drops of the chemical oil of mint, and with ſyrup of ſaffron make all into the conſiſtence of an electuary. This is to be divided into twenty-four doſes, one of which may be taken by children of eight or ten years of age, every four or ſix hours, while the patient is awake. To make this or any other preparation of the bark ſit eaſy on the ſtomach, the patient ſhould firſt eat a bit of bread, or other light food,  
with



with which it may mix, instead of being received into an empty stomach, whereby it frequently becomes oppressive.

### GENERAL OBSERVATIONS *on* COUGHS.

PREVIOUSLY to treating of the whooping, and what I have termed the spasmodic cough, it may be proper for the sake of some readers, to premise some slight observations on coughs in general; a complaint in children that we are often consulted for. It is, indeed, always of importance to be able to make proper distinctions in this affection, as it accompanies divers complaints, especially in infancy; and is sometimes a very harmless attendant, while at others, it is of the greatest magnitude, and calls for its appropriate treatment from the beginning. My remarks here, however, will be very brief.

FROM what has been said in different parts of this work, it will be very evident, that a cough is not always to be considered as the original complaint, like the whooping-cough, any more than a direct consequence of a cold,

or

or of a specific pulmonary affection, as in the measles. Where it may happen to be so, enough, it is presumed, has been said under the head of fevers ; and the whooping and spasmodic coughs will be presently treated of distinctly. The intention here is only to afford satisfaction to a class of readers, who may expect to meet with some observations under this head, by reminding them, that a cough often attends teething, and some bowel complaints, or a foul state of the stomach, as well as a common cold, and inflammatory and other fevers, (which they are, however, apt to suspect whenever children are attacked with a cough ;) and is a recurring symptom in many delicate habits. Very slight occasions are oftentimes sufficient to excite it in such children, whether from a frosty or damp air, or from any little illness that has reduced the strength, and particularly if the child be of a scrofulous habit. Every confirmed glandular affection will, indeed, be attended with a cough, which in that case is of the worst kind, as it is attended with fever, loss of strength and manifest disease ; in the last stages of which the cough becomes permanent.

IN every case, therefore, the cause and attendant symptoms, rather than the mere cough, should be carefully attended to, and especially if the child be costive, or the bowels foul, and their discharges of an unusually offensive smell. Purging medicines, it has been before said, are in this case the proper remedies, which should frequently be joined with saponaceous medicines, such as the aqua kali, prepared natron, or the burnt sponge; nothing being more common than an obstinate and teasing cough, especially during the night, when the bowels have been long in a costive state, and the alvine discharges are very fetid, or of a stiff and clayey consistence. As opiates in such cases must be peculiarly noxious, the strictest prohibition of them should be enjoined, lest the constant recurrence of the cough during the night, should tempt nurses (as it often has done) to administer even syrup of poppies, though the mildest of that class; since by increasing the constipation of the bowels, it will not fail equally to increase the disease.

## HOOPING-COUGH.

THE Hooping-cough is a disease unknown, probably, to the old writers, and is supposed to have been conveyed into *Europe* from *Africa*, or the *East Indies*; the *Greek* and *Arabian* physicians make no mention of it, and indeed it has not been well understood in any part of *Europe*, till of very late years. Hence, probably, its great fatality in *Stockholm*, where from the year 1749 to 1764, inclusive, 43,393 children are reported to have sunk under it. Even WILLIS supposed its seat to be in the breast, but HARVEY makes it a disease of the stomach, and ASTRUC an inflammation of the larinx and pharinx, produced by an original affection of the former, from indigestion. He seems to have been one of the first that discarded the use of oily and pectoral medicines, (which, indeed, some practitioners have since been weak enough to revive;) though he advised bleeding too indiscriminately\*.

\* See his *Diseases of Infants*.

THIS disorder furnishes another proof of the observation made on the impropriety of submitting the complaints of children to improper hands—the care of old women, and frequent change of air, being all that this disorder is, by some people, thought to require\*: but perhaps the maxim was never worse applied. There is, indeed, a milder sort of hooping-cough, as there is of every disease, that calls for very little medicinal assistance; and it is always in such cases, that matrons and old nurses acquire their credit. But there is no complaint of children with which I am at all acquainted, in which medicine is at times more evidently serviceable, than a bad hooping-cough.

THIS disease is certainly highly infectious, and one of those that never appears a second

\* If this be true to any degree, so that children, with very little assistance from medicine, have seemed to get rid of obstinate hooping-coughs, by removing from one air to another; it is not improbable, that this may have arisen as much from getting out of infected beds and apartments, which might keep up the contagion, through the medium of respiration, as from any specific influence of the air, resulting merely from a change.



time. It often begins as a common cough, and is attended with the usual symptoms of having taken cold, but in its progress soon becomes more severe; though the longer it may be before it plainly discovers itself, by the *hoop*, the more favourable it is likely to be. The fits of coughing are attended with a peculiar noise, not ill-expressed by the term *hoop*, and is sufficiently known to every parent who has ever had a child severely attacked by it, and to whose feelings, it proves one of the most distressing complaints their children are liable to. A flux of rheum frequently comes from the mouth, nose, and eyes, and the food is thrown up, together with a viscid phlegm, (often in great quantities) in the coughing fits; between which the child generally appears to be perfectly well, and eats its food very heartily. These are the more common symptoms, but when the disease is violent, and has continued for some time, they become greatly aggravated, especially in the night, and the child will seem almost strangled in each fit, the face and neck becoming perfectly livid, till by a violent effort, attended with a hoop, it recovers its breath; the blood

will likewise sometimes rush from the nose and mouth: and I have in two or three instances seen the eye-lids as black as if injured by a violent blow, and remain so as long as the cough has continued severe. When taken in time, however, and properly treated, the whooping-cough is rarely fatal, and scarcely ever but to young infants.

It has been thought by some practitioners, that little more than emetics, and gentle laxatives are required; in which view it was, that the late Dr. JAMES recommended his powder. But the fact is, that many other means are equally useful, and not unfrequently indispensably necessary, unless we should suffer the patient to be strangled in a fit of coughing, or fall into a decline, from the injury which the lungs must endure by a frequent repetition of such violence.

THIS must be exceedingly apparent from the above history of the disease, the various symptoms of which, certainly demand a considerable diversity in the treatment. The more important ones are, the state of inflammation, sometimes inducing peripneumony; the quantity and viscidness of the phlegm; and the

the spasmodic affection, and danger of suffocation; together with the exhausted state into which the patient may be reduced by the long continuance of the disease. If the breathing therefore be difficult, a blister is indicated, which, if the child is not very young, may be kept open for two or three weeks; or, what is sometimes preferable, the repetition of a small one, once in six or eight days. If the face should be very livid, and swollen, during the fits of coughing; if any vessel give way; or the patient be plethoric, and more than two or three years old, or should be hot between the paroxysms, a little blood ought to be taken away, (which is sometimes inexpressibly useful,) and a saline draught be administered, every six or eight hours, and the bowels kept open, till the fever shall disappear. Otherwise, if none of these symptoms attend, bleeding does not seem, in general, to be indicated, nor much purging, but may rather have a tendency to protract the disease, by increasing the spasmodic disposition, and by weakening the patient.

If there be an inclination to vomit, it ought to be encouraged, unless the phlegm be

brought up with great ease in almost every fit of coughing, in which case, nature seems able to accomplish the business herself, and it will then oftentimes be sufficient to keep the body open by the mildest laxative medicines. But it very rarely happens, unless in infants at the breast, that some kind of emetic is not necessary in the first stage of the complaint. The disease, indeed, frequently requires no other medicine; for such usually keep the body open at the same time, which it ought always to be, but not to such a degree, it has been said, as to weaken the child. For this purpose, perhaps, wine of antimony may be as proper as any thing when it answers the end; but I have thought it less certain than tartarified antimony, from its not being always of an equal strength. I have, however, for the last twelvemonth been in the habit of using it very frequently, and when the proper dose has been ascertained, have thought it operates more mildly than the tartarified antimony, which sometimes proves far too violent for very young infants. Whensoever preferred, however, two grains of it dissolved in two ounces of water, with the addition of a little sugar,

is

is a medicine to which children will never make any objection. From one to two teaspoonsful, given to a child of a year old, (varying the dose according to the age) will in general act sufficiently; and may be given upon an empty stomach, every day, or every other morning, according to the strength of the child, and violence of the disease. If the cough should happen to be more violent at any particular time, the emetic should be given a little before the paroxysm is expected. Or perhaps a still better method, at least in some cases, and particularly in very young children, is, to give the tartarised antimony in smaller doses, together with a few grains of magnesia, or prepared oyster-shell powder, (according to the state of the bowels) three or four times a day, so as to keep the stomach in such an irritable state, as shall secure a gentle puking every time the fits of coughing come on. But in whatever way this medicine be directed, it will prove of no service if it does not vomit, and must therefore be given in a dose suitable to the strength of the stomach, which is exceedingly various, not only at different ages, but in children of the same age,



and of the same apparent habit of body. If one antimonial may have any advantage over another, they have all much more over every other emetic I have made use of, the ipecacuanha, and oxymel of squills, being exceedingly unpleasant, and the latter, as far as my experience goes, usually more uncertain than any other emetic.

SUCH a plan is all that will be necessary in the common hooping-cough; but it has been said, there are many cases which will require other means, and demand all the skill of the experienced physician. The cough, for instance, will sometimes increase not only for days, but for weeks together, and the strangu-lation be exceedingly alarming. In this case, the milk of gum ammoniacum, but especially asa foetida, frequently proves a sovereign remedy, and though exceedingly nauseous, many children will take it tolerably well for the short time it appears to be absolutely required; and when they will not, it may be administered by way of clyster, dissolved in two or three spoonful of penny-royal, or common water. These medicines, however, will be improper in the very advanced stage of  
the

the disease, when attended with hectic heat, hemorrhage, or other pthysical symptoms; a caution equally necessary in regard to the bark, which in the absence of these symptoms, and after the stomach and bowels have been well cleansed, is frequently very useful at the latter stage of the disease, when the patient has been exhausted by its long continuance. Upon the same plan with the asa foetida, camphor and castor are frequently beneficial, and have the advantage of being less nauseous, but I think are proportionably less powerful. I take no notice of tincture of cantharides, though strongly recommended by some writers, because I have had no experience of it myself, and indeed have never found any necessity for trying it.

It will sometimes be of no small service, to rub the hands of infants, and the soles of their feet, with the compound spirit of ammonia, several times in the day; or the spine of the back, and the pit of the stomach, with oil of mace, (so called) or oil of amber; but as the smell of the latter is very unpleasant, it may be dispensed with, where the spasms are not exceedingly urgent. But when they are so, this  
oil

oil is sometimes very useful, particularly when administered internally, and children of three or four years old will often take a few drops of it very well, mixed in a spoon with a little Lisbon sugar; from which I have seen as evident advantages, as from any medicine whatever. In a little child of my own, it immediately gave a turn to the complaint in the most violent hooping-cough I ever met with, and after almost every other medicine had been tried to no purpose; so that from the hour she took it, the complaint was no longer alarming, nor tedious of cure. But frequently, no anti-spasmodic is equal to opium, in this, as well as in other diseases. With this view, four or five drops of laudanum, or if a pill be preferred, from two to five grains of the pil. è styrace, and to younger children a small tea-spoonful of syrup of white poppies, taken at bed-time, will not only quiet the cough, and remove the strangulation during its operation, and procure the patient some rest, by which the strength will be recruited, but in many cases, seems to have a kindly operation on the disease itself. It is in this way, I doubt not, that the cicuta has gained so much reputation,

but

but I believe, it is no otherwise a remedy for it than as an anodyne. From a mistake, however, in this respect, the strong manner in which this medicine has been recommended by Dr. BUTTER, has certainly done harm; as I have known people depend solely upon it in very bad cases, to the exclusion of other remedies evidently indicated, which would, at least, have shortened the disease. Joined with emetics and other means, as the symptoms may indicate, it is, nevertheless, a valuable medicine.

If obstructions in the lungs be suspected, blisters should be applied, and recourse had to gentle deobstruent medicines; but at this period, the cure is chiefly to be accomplished by perseverance in cooling laxative medicines, by a vegetable and milk diet, (especially asses milk) pure air, and gentle exercise.

THE cough after having disappeared for a week or more, is sometimes found to return with great violence, especially upon taking cold; but a gentle purge or two, a vomit, and abstaining from heavy food, generally remove it in a very short time. Should this fail, a grain of *asa foetida* taken, two, three, or  
four

four times a day, according to the age of the child, never fails to check it immediately. If these cautions should be neglected, the cough will oftentimes prove extremely tedious.

THE only thing that remains to be spoken of, is the proper diet, which for children even of five or six years of age, ought to be little more than milk and broths. These are easily digested, and will afford them much more good nourishment than any kind of meats, will sit much lighter on the stomach than puddings, or pastry, the latter of which is exceedingly injurious. The objection made by old nurses against milk, that it breeds phlegm, is utterly founded in a gross mistake that cannot be too frequently controverted. It has, indeed, been sometimes mentioned by a certain class of medical people, but the objection is so truly unphilosophical, and unlike the objections of thinking men, that it scarcely deserves a reply. Should the milk, however, be found to curdle remarkably soon on the stomach, a little common salt, Castile soap, or testaceous powder, may be added to it occasionally; or where it can be afforded, asses milk may be substituted for cow's. These  
light



light nourishments soon pass out of the stomach, or if brought up by coughing fifty times in the day, (as I have known them to be) a child of four, or five years old, will immediately take more of them with avidity, and will be better supplied in this way, I mean by taking a tea-cupful at a time, than by making set meals, or taking a large quantity at once. If the child should be thirsty, a little apple-water, toast and water, tamarind-tea, and other thin drinks, will be pleasant and useful. Patients treated in this way, will get through the complaint, if not severe, in a very short time; and where it proves violent, a child will struggle through this long disease, without any considerable loss of strength, or will be very soon recruited by a decoction, or cold infusion of the bark, together with gentle exercise, and country air, the best restoratives after every kind of disease. Such at least has been my own experience in this tiresome complaint, by which, I know, parents are usually as much alarmed as by any incident to childhood. But unless it has been long neglected, or taken place in the month, I have never experienced it to be fatal, and  
then

then only in one instance, (where I was called only a few days before the child died) though I have known eight or nine children in a family labouring under it at a time ; and I wish to mention this as an occasion of consolation to those who may have been led to think more seriously of it.

## SPASMODIC-COUGH.

MUCH akin to the former complaint, is a troublesome cough, properly enough denominated spasmodic, or convulsive. In a certain state of the air it is sometimes epidemic, and young children, and even infants in the month, are then attacked by it, as well as adults. The irritation seems to be about the larynx, (or superior parts of the throat) or a very little lower down, and is exceedingly distressing, at the time of coughing ; but the patient, though an infant, seems immediately afterwards to be quiet and comfortable. This cough is not usually attended with fever, nor other ordinary symptoms of a common cold, nor is it to be relieved by the like means ; the  
cough

cough remaining dry and hoarse under the use of pectoral remedies.

CHILDREN of two or three years old may be cured by the cicuta, and gentle laxative remedies; but the former being less adapted to infants in the month, such may take a few drops of the syrup of white poppies, three or four times a day, and their bowels be carefully kept open; which means seldom fail of removing the complaint in three or four days.—Should the syrup over-much constipate the bowels, or otherwise disagree, BATES'S Sp. Sal. ammon. succinat. may be tried in its stead; which is a good medicine in other dry convulsive coughs, where there is no fever.

SINCE the former edition of this work, I have met with this complaint very frequently in children from two to four years of age, in some of whom it had been of several weeks standing, and after various remedies for coughs had been made trial of. In every instance, the complaint has been immediately relieved by the cicuta, and in a week or ten days, been usually removed.—The like good effect has attended an infusion of the oak-lungs, after many of the ordinary remedies for coughs have

have failed; and may very well be administered together with the cicuta, if that should not be soon attended with good effect.

THERE are, however, some more formidable cases, in which the symptoms are greatly aggravated, and children continue longer in a convalescent state. I have also been called to visit some under all the semblance of approaching death, with profuse sweats, rapid and feeble pulse, and laborious respiration; supposed by able physicians to be sinking fast under peripneumonia notha, or the more aggravated symptoms of a true pleuritis.

ALTHOUGH reduced to this state, under the best conducted antiphlogistic plan, yet has a recourse to the cicuta succeeded equally well, giving immediate relief to all the symptoms. But a degree of dyspnœa all along merely spasmodic, having, in some cases, still continued, it has after a week or ten days, been found expedient to have recourse to the bark. At the same time, the violence of the cough attended with very copious secretion of phlegm, which young children seldom spit up, has required two or three gentle emetics, which have then not failed having a happy effect;

effect; though administered previously to the cicuta, I have known greatly aggravate the symptoms, probably, by increasing the debility, and disposition to spasm.

As many practitioners not very conversant with this complaint under its more aggravated appearances, have been led to consider it as inflammatory, so others, from the continuance and violence of the cough, have expected it to terminate in the whooping-cough, but have been equally mistaken; this being a distinct species of spasm, and never attended with the true hoop.

MR. MOSS speaks of a spasmodic cough, different, he thinks, from any previously described\*, and probably an endemic of *Liverpool*; resembling, however, the humoral asthma of adults (he says) more than any other.

It is said to commence a few days after birth, and to continue for several weeks, or sometimes for months; and in either case so commonly proves fatal, especially amongst the lower class of people, that Mr. Moss is at a loss to suggest any appropriate remedy.

If it be truly an endemic, I can, probably, judge but very imperfectly of it; but from

\* An. 1781



many circumstances in the spasmodic cough described in this chapter, it does not seem unlikely, that the cough at *Liverpool* may be of the same kind. What the former might become if very long neglected, or improperly treated ; or in what time it might prove fatal, I am not prepared to say, having always soon succeeded in its cure by the means I have recommended ; which may, possibly, be worthy of a trial at *Liverpool*, as they will not set aside the little general remedies in use.

## THE CROUP.

THE Croup, or acute asthma, is a complaint somewhat similar to the two former, to which, perhaps, children only are liable, called, therefore, asthma infantum spasmodicum ; also suffocatio stridula, and esquinancie membraneuse. It rarely attacks those who have arrived to the age of ten or twelve years, and, according to Dr. MILLAR, chiefly seizes infants newly weaned ; and is then the most severe. He is, perhaps, the first person in this country who has written particularly on this complaint ;  
but

but it had been mentioned by some *German* writers, and well described by them long before it was noticed in *Britain*.

REMOTE causes of this disease may possibly be the lax fibre of children, the abundance of moist humours natural to them, and the vast secretion from the bronchial, or air-vessels; and perhaps the change of food from milk, which is easily assimilated, to one requiring more digestion.

THE prophylaxis, or mean of prevention, is the same as in most other diseases peculiar to children. If this complaint arise from the laxity of their solids, the quality of their food, and the natural weakness of their organs of digestion, the general means of prevention, as well as of cure, will be readily indicated. Their food should be such as may be easily digested, and may prove nourishing. A due proportion of milk and broth\*, (taken either separately, or mixed) whilst children are very young, or light meats when they become older; good

\* A diet of milk only, even in adults, when long persisted in, though otherwise proper, will create flatulencies.  
BARRY, *On Digestion*.

air and exercise, and a careful attention to the state of their bowels.

THE proximate CAUSE of this complaint is a morbid secretion of a viscid mucus in the trachea, adhering so firmly to its sides as to impede respiration. The quantity and viscosity increasing, gradually lessens the diameter of the wind-pipe, and if it effect this to a considerable degree, the disease must necessarily prove fatal.

THE SYMPTOMS of this complaint are spasmodic, being such as would be produced by any other matter constantly irritating the trachea, and diminishing its diameter. They will therefore very much resemble those of the nervous asthma, but the complaint differs materially from the common spasmodic asthma of adults, in the peculiar croaking noise made in respiration, (from whence it has its name) and in the violence of the paroxysms; which, when the disorder is light, leave no apparent indisposition, save a certain dulness, and a sense of fear, in children capable of expressing it. The fits frequently terminate by sneezing, coughing, or vomiting, and return without any regularity. It is attended with a quick  
pulse,

pulse, laborious breathing, a sharp, and shrill voice, and a flushed countenance, which grows livid during the paroxysms, or fits.

THE disorder is probably inflammatory in the beginning; and though this period in many instances seems to be short, yet if the physician be consulted as soon as the disorder may be ascertained, an immediate bleeding might be useful. But after the *croup*, as well as difficult respiration have thoroughly taken place, it would be improper to have recourse to that evacuation, unless by some topical means, (which, indeed, will be sometimes very expedient) or where the usual signs of inflammation may be very unequivocal.

It does not always seem to be an original disease; being sometimes a consequence of bad fevers, especially the febris scarlatina, as well as of some chronical disorders that have reduced the patient's strength, and is then much more dangerous. But the worst kind frequently appears to arise from the same causes as the malignant sore throat, only having its seat lower down, and is therefore more severe. And it has, in several instances, accompanied it, as may be known in the early

stages of that complaint, by the croaking noise peculiar to the croup; and, I believe, is in such instances generally fatal.

DR. MILLAR, who has written largely on this disease, (I apprehend, as it appears in *Scotland*) divides it into two principal stages; in the latter of which no method of treatment has appeared to him to be effectual, but medicine is never more efficacious, he thinks, than in the first, if the disorder be not combined with some other, and it be taken in time; though the crouping may be very considerable. This I saw remarkably exemplified in a little boy of my own, who was nearly cured in two days.

THE sovereign remedy in this species and period of the disease, is *asa foetida*, which Dr. MILLAR directs to be administered both by the mouth and in clysters, in doses according to the exigency of the complaint; and where no marked inflammation has taken place, may be given very freely; and afterwards the bark, when the spasms remit.

BUT from my own experience, as well as from conversation with the first physicians, I am inclined to think, that when the disease yields so readily



readily to this remedy as Dr. MILLAR reports, and as it certainly did in my own child and others I have seen, it is not the disorder usually known in this city by the term croup, but a mere spasmodic complaint, totally unaccompanied with inflammation. And this appears to me to be the more probable, from the recovery of such patients, and the consequent want of proof of the existence of that tough membrane found in those whose bodies have been examined after death; in whom the disease is always of short continuance after the croup, or croaking noise in respiration, has taken place. Whereas, the other kind of croup has sometimes been known to continue for two months, and then has yielded to opium. Instances have likewise been met with of children crouping for two or three days, and being then seized with whooping-cough, which has instantly removed the croup: these circumstances seem to prove that species of croup to be truly spasmodic. I have seen it, more than once, in this form attend the cutting of teeth; being then the mere consequence of irritation, as we see cough, and various other symptomatic affections induced at this period. How far Dr.

MILLAR may, possibly, have mistaken what he calls the two stages of the croup, for two very different species of this complaint, I shall not attempt to assert. From my own experience, however, as well as his authority, it seems very proper that a trial should be given to the *asa foetida*, when there is no degree of fever, and the child seems little, or nowise indisposed, in the intervals of the crouping.

SINCE I published the last edition, I have, indeed, seen other two instances, in which the *asa foetida* has had a good effect. In the first (a child of about a year old) whom I had been attending under severe fits, and who was seemingly recovered, the crouping took place a day or two after I had taken my leave. The alarm which this created after so serious a disease, occasioned the parents to pay immediate attention to it; who therefore sent to me upon the very first attack. Antimonials were first administered, and the infant kept through the night in a sick state; during which much phlegm was brought up. The crouping abated, but still recurring at longer intervals, *asa foetida* was given freely; after which the croup ceased in the course of three or four days,

days, and the child seemed perfectly recovered, when it died suddenly in a fit; as two other infants in the family had done. Upon examining the head afterwards, water was found in the ventricles of the brain, (as it had also been in the other children;) but the trachea was perfectly clear. I reflected much upon this case, and therefore waited anxiously the event of another which I was attending at this time, and whereby, as I conceive, some light has been thrown on the former, as well as upon the disease itself, which has been so variously conceived of.

THIS infant was two years and a half old, and from a cold was seized with the common symptoms of peripneumony. Some blood was taken away, a blister applied, and other means usually had recourse to in that disorder were successively employed. As the fever and cough gave way the child began to croup, but though violently agitated under the attacks, and apparently alarmed at their approach, was composed and comfortable between them; the attacks being at first only in the night, and on waking from sleep. The same means were had recourse to as for the former child; at first antimonials, and afterwards a *sa foetida*; and

and it may be remarked, that they were both given in larger doses than I had ever seen administered to any infant. The former rarely made him vomit; which circumstance in the course of the disease, led to the trial of almost every emetic, even the vitriolum album to grains ten, and afterwards, a scruple at a time\*. At this period, I had the satisfaction of being assisted by Dr. ASH. In the progress of the disease, mercurial ointment and likewise a blister were applied to the throat, and sinapisms to the feet; and the bark, cicuta, and other medicines exhibited, as the symptoms appeared to require. The infant reco-

\* This child from beginning with one grain of pulv. antimon. which was several times repeated, took afterwards a drachm, and two drams of vin. antimonii; then pulv. ipecacuanhæ ʒβ. grs. xv, and ʒj, to which was added gr. j antimon. tartarificati; and at length, the doses of vitr. album above mentioned. The trial of emetics was then given up for several days; at the expiration of which he took oxym. scillæ ʒiij. with ʒj. vini antim. which succeeded better than any thing, though it puked him only very moderately; but continued to do so for the three or four times that he took it.—For remarks on the inertness of emetics and purges, see page 35.

vered at the end of four weeks ; the croup in some degree continuing full three.

THIS disease then appears to have been what may be termed the spasmodic, or chronical croup, the effect in part, perhaps, of debility induced by the foregoing disease. Of this species, Dr. ASH informed me he had seen several instances, wherein the children recovered. How far the generality of Dr. MILLAR'S may have been of this kind, every reader will conjecture for himself: that they were so, seems to me, however, very probable.

COMPARING this case and the result of what I had before experienced of this disease, I was led to think, that in the first cited case, the disorder was either purely spasmodic, occasioned either by debility left by the fits, or owing to water in the head ; or else, it was cured by the emetics and *asa foetida* in the first stage, by being taken immediately in hand, before the inflammatory crust had time to form, as Dr. MILLAR suggests: the sudden death being fairly enough attributable to the water in the brain.



FROM the degree of success attending these two cases, as well as that of my own child, and those of teething children, it may be concluded that, from a proper discrimination of the disease, there may be more room for hope in this cruel disorder, than some physicians have been induced to think; and that *asa foetida* will have its use in the cure. This remedy, it has been said, is only adapted to the spasmodic species, or where the disease has been protracted to some length, and especially where it is not accompanied with signs of inflammation, but the child is found to be pretty free from complaint, during the intervals of crouping.

IN general, however, it is far otherwise, the disorder being truly inflammatory in the first instance, and is, I believe, always attended with a cough and difficulty of breathing very soon after the croaking noise has taken place. It may, perhaps, be considered as a misplaced angina, the disease falling on a part of more consequence than the tonsils, and therefore more speedily fatal.

IN this species, therefore, four, six, or even more leeches should be applied to the throat, especially

especially if there be any perceptible fulness of that part, and a blister to the nape of the neck. The patient may likewise breathe the vapours of warm water with vinegar in it, as recommended by Dr. FRANCIS HOME. After the leeches and blisters have been applied, a vomit should be administered, and the sickness kept up for several hours, by small doses of the antimonial powder; which has succeeded, not long since, in three instances, recourse being fortunately had to these means within two or three hours of the commencement of the disease. At the close of the complaint, and to prevent a relapse, the bark proves highly serviceable, and will also restore the strength of the patient.

THE *French* writers likewise depend much upon emetics, and afterwards lenient purges; and to prevent a return, advise aperitives, stomachics and tonics, particularly preparations of steel, and natural chalybeate-waters.

I HAVE examined the trachea after death in only three patients, in two of which I found the precise appearances described by Dr. MILLAR and others; the wind-pipe being lined by a tough viscid coat, so as mechanically to close

close up the passage. The third instance, was that in which the infant died suddenly of the hydrocephalus, a few days after appearing to be recovered from the croup.

SINCE this chapter was compleated, I met with the Medical Inquiries and Observations of Dr. RUSH of *Philadelphia*, reprinted in *London* this year, in which is some account of this disease, under the name of Cynanche Trachealis. Dr. RUSH here takes notice, of his having had reason to change his opinion since he wrote to Dr. MILLAR the letter published by him in the year 1770, purporting that there is only one species of this disease, and that, *that* is spasmodic. Dr. RUSH has since that time seen many instances of another, which he calls the humida; and for which, besides bleeding (when pneumonic symptoms call for it) and the ordinary remedies of vomits, and purges, he strongly recommends calomel, as a very successful one, when given in a large dose as soon as the disease discovers itself, and in smaller ones every day, as long as any symptoms of it continue. He is so sanguine in this opinion, as to assert, that the bark is scarcely a more certain remedy for intermittents,

termittents, than calomel, when thus administered, is in this species of Cynanche.

SHOULD this prove to be the case, after repeated fair trials in this country, the public will, indeed, be much indebted to him, and I shall be happy in thus further introducing such a remedy to notice; though I have not myself had an opportunity of putting it to a fair trial, since Dr. RUSH's book came to hand; though I have administered it twice in slighter affections.

It may seem necessary to add, that suitable as the names given by Dr. RUSH may be to the diseases he has described, I have seen no reason to induce me to alter those I had given as the result of my own experience; being satisfied, that besides the spasmodic croup, described by him and Dr. MILLAR, (if that be essentially different from both those I have described,) there are other two species, the one very dangerous and usually fatal in a few days, which I have termed the acute, and another of much longer duration, very rarely mortal, which I have therefore denominated chronical; and from which I have seen two  
more

more infants recover since this chapter was drawn up.

## RICKETS.

THIS is a late disorder in *Europe*: ASTRUC observes that *England* is said to be the part in which it first made its appearance, and that it was then described by GLISSON and MAYOW; but he thinks it probable, that it appeared at the same season over all *Europe*, through the coldness of the weather. It was named Rachitis, from the *Greek*, implying that the spina dorsa is particularly affected by it\*; though

\* From this circumstance, it has been supposed to have been known in the time of *Hippocrates*; but his remark (*Aphor.* § 3. 26.) is certainly too concise to establish the sentiment; as it is simply observed, that among other complaints, infants after the period of dentition, are liable to *παριθμία, πονδύλις του κατὰ τὸ ἰνόν εἰσω ὥσεις* — In *Mons. Le Febvre de Villebrune's* *Greek* edition of the *Aphorisms*, there are, however, some observations tending to evince, that this disease is of an older date, by some centuries, than it has been generally imagined; and this, it should seem from the nature of the disease, is not unlikely.

it



it rarely attacks the spine till the disorder is far advanced.

It was first noticed in the western parts of *England*\*, about the year 1628§, and is said to have taken place upon the increase of manufactures, when people left the villages and husbandry, to settle in large manufacturing towns; where they wanted that exercise, and pure air, which they had enjoyed in their former situation, and employments.

It may, therefore, frequently arise from unhealthy parents, especially from mothers who pass too sedentary a life in a bad air, and feed upon a weak and watery diet; from children's food being weak, watery, or too viscid to be properly digested; but above all, perhaps, from bad nursing, and children being left wet, dirty, or exposed to a cold moist air†, without sufficient covering; from want  
of

\* See GLISSON. § PRIMEROSE.

† From the experiments lately made by *Drs. Beddoes, Withering* and others, upon atmospheric air, and its relation to diseases, it cannot be at all surprizing, that this disorder, particularly, should often be owing to foul air, in which, what has been lately termed the azote, is too predominant.

of proper exercise, and from close and crowded apartments. On this account, children of poor people are particularly liable to this disorder: parents, and governors of work-houses ought, therefore, carefully to guard against the last mentioned causes.—Or lastly, from the habit of body being reduced by the long continuance of almost any of the complaints hitherto considered. From these sources arise what may be termed its proximate causes; such are, a load of undigested juices in the stomach, intestines, and all the first-passages; an universal viscidities in the extreme vessels, especially of the joints; a corrosive acrimony from a too languid circulation, and a general obstruction in the fibres of the muscles.

THE usual SYMPTOMS of rickets are soft flesh; bloated, or a very florid countenance; weakness; dislike to motion; with enlargement of the belly, head, and joints. The wrists and ankles enlarge first, afterwards the back, and breast-bones; and, indeed, all the bones swell and become soft, especially the

And it is worthy of remark, that this complaint is scarcely known in very hot climates.

more

more spongy ones. The pulse is quick, and feeble, and the appetite and digestion usually bad. Teething is commonly late, though not frequently difficult, but the teeth often rot early, and fall out. Great acuteness of mind has been observed in this, and some other chronical complaints. It seldom attacks children before they are six months old, or above two years.

As it appears to arise from a general weakness and relaxation, the indications of CURE are to brace and strengthen the solids, and to promote digestion, and the formation of good chyle. These ends will be promoted by wholesome, and dry food, suited to the age; good bread, or biscuit; and roasted meats, rather than boiled; with a little red Port wine. Should the child be too young to eat flesh meats, its diet ought to be chiefly of broths, milk, rice, millet, pearl-barley, salep, and semolina, with spices, if it be not inclined to be feverish.—This, however, is sometimes the case in older children, though, perhaps, too rarely suspected, and requires in that stage of the disease a very opposite treatment; even small bleedings being then found serviceable.—The child must

above all have good nursing, and especially exercise and air, without being kept very hot or very cold : unless a strict attention be paid to these, medicine can be of but little service. If the child be too young to exercise itself by walking and such like, the nurse, besides affording it every exercise it can bear, may induce the infant to exert itself to no small advantage, by the following easy means. She has only to dash a few drops of water suddenly in its face several times a day, in the manner often done to recover people from a swoon, though less violently. This will oblige the infant to put almost every muscle into action, by which the blood will be forced through the minute vessels, and many of the advantages of exercise produced, and in a more powerful manner. To the same end, linen cloths wetted with cold water, with the addition of a little spirit of any kind, may be applied to the arms and legs, or to the spine every time the child is dressed or undressed, especially if the bones of these parts are become enlarged or distorted by the disease. The parts should afterwards be rubbed very dry with a piece of warm flannel.

IF the child is of a gross habit, the eighth part, or a quarter of a grain, of ipecacuanha powder, taken once or twice a day; gentle pukes, and very brisk purges, especially of the powder of scammony with calomel, prove of use. The compound tincture of aloes is also a good medicine, a few drops once or more in a day, (as may suit the state of the bowels) taken on a bit of sugar, or otherwise. In such habits, all foundation of a cure must be laid in reducing the belly to its proper size, and in strengthening the stomach. If rather delicate, the cold-bath is often of more service than any thing else: but this should not be entered upon in winter, nor without previous purging. Frictions afterwards with flannel and aromatic powders, or the fumes of frankincense, mastic or amber, especially on the back and belly, will further tend to strengthen the habit. Besides such means, may be given the cold infusion of bark, and other bitters, especially columba; or small doses of the martial flowers, tincture of myrrhe, or the vinum ferri: but it was before remarked, that a good diet, air, and exercise, especially riding on



horse-back, are of the utmost consequence ; which if duly persevered in, and the state of the stomach and bowels properly attended to, will often effect wonders. Parents, therefore, ought not to despair of a cure under any circumstances, provided the internal and vital parts be not diseased; much less should they be so greatly alarmed as they usually are, at the slightest symptoms of this disease, when its true cause has been discovered, and proper remedies are applied. Besides, this is one of those chronical, or lingering complaints, which seem to be gotten the better of by time, and like the following one, wears itself out, as it were ; and to which the above mentioned means will greatly contribute—*Sæpe Pertinacia Juvantis, Malum Corporis vincit.* (CELSUS.)

#### SCROFULA, *or* KING'S-EVIL.

THIS is primarily a glandular disease, though in its progress it attacks the adipose membrane, the eyes, the muscles, tendons, and  
even

even the bones themselves, especially the joints\*. Such at least has been the general opinion, though from later investigations there is reason to imagine that it originates in the cellular membrane. It seldom makes its appearance before two years of age, nor later than ten or twelve, (unless it be in regard to affections of the eyes,) though there are a few exceptions in respect to the latter period; and it then often proves fatal, by falling on the larger joints, the lungs, or other noble part. It is frequently observed to follow other disorders, particularly the small-pox, whether taken naturally or from inoculation, but more especially the former; also the whooping-cough, measles, teething, rickets, and many other disorders already mentioned. Hence, the nature of this disease is better understood, as it so often falls upon weak and tender habits, either originally of a lax fibre, or worn

\* From this propensity to spread, the disorder is said to have taken its name. “*Strumæ, vel scrofulæ, sic dicuntur, quia frequenter in scrofis, id est, suis, in collo fiunt; vel à multiplici partu, quoniam sicut sues multos edunt partus, sic in scrofulis ex una postundum fiunt plures.*”

*Tractatus de Morbis Puerorum. Amstelodami, 1760.*

out by previous diseases; or is gradually brought on by a heavy, indigestible, and bad diet, or a low, wet, and unhealthy situation. It is, however, sometimes found to be hereditary, but will very frequently lie dormant for two or three generations, and afterwards appear with redoubled violence; as well as affect the greater part of a family very much, whilst the rest shall be entirely free from it. It is often attended, or rather preceded, by a peculiar look about the eyes, which are generally large, and a thickness of the upper lip; and sometimes proves a source of ill-health through life, but is not usually fatal in the first instance. Long before the external glands become affected, especially in young subjects, the belly is sometimes observed to be hard and enlarged, and after death, the mesenteric glands, the lungs, and even the pancreas have been found diseased.

THOUGH this is always a very unpleasant complaint, and frequently does not admit of so much relief by medicines as many other disorders, yet it oftentimes disappears at the time of puberty, (and sometimes sooner) especially in females; but whether this be owing

ing to the increased strength of the solids, or to other changes in the habit, naturally happening at that period, is not an inquiry proper for this place. On the other hand, after disappearing for several years, during which perfect health has been enjoyed, the humour has, unexpectedly, fallen upon some internal glandular part, frequently the mesentery, occasioning various pains and complaints, often attributed to other causes, and has undermined the constitution; producing ultimately pulmonary consumption, or a fatal marasmus.

ALTHOUGH I thought it very necessary to mention this disease amongst others to which the state of childhood is liable, I am sensible how difficult it would be to point out any thing like a general, and adequate remedy. At its first appearance, however, bitter, or mercurial purges, are sometimes of use, as are also antimonial vomits, and sometimes burnt-sponge, and saponaceous medicines, warmed with spices, and continued for a length of time. But when the disease is confirmed, lime-water, and decoctions of the woods, together with crude antimony, bark, and steel, with wine, and a generous diet, are, I believe, most to  
be

be depended upon as internal remedies ; from some of which, I have seen no inconsiderable cures effected. But in this, as in other chronic complaints, good air and exercise are of the greatest importance. Indeed, the advantage of exercise in this disease is so great, that I wish to lay a very great stress on it. But then it must be daily had recourse to, and, by degrees, be so considerable, as to render the patient every night sensibly fatigued. Thus, I have known riding behind a carriage, almost without the aid of any medicine, entirely remove the complaint.

WHEN there are external tumours, I am satisfied that the opinion I have already given to the public, in a larger tract on this complaint, is both rational and safe ; and that whenever they are at all disposed to come forward, they ought to be brought to as speedy a suppuration as is possible. To this end, an epithem of honey, flour and yelk of egg should be applied twice a day, and the parts be electrified. The scrofulous virus when thrown on the surface, so far resembles the cancerous, according to the description of the late ingenious Mr. HUNTER, that it is inclined  
to



to spread to a considerable extent; but as tumours of the former class will bear rougher treatment than the latter, I am confident that much benefit may arise from the use of external stimulants, by stopping the progress of the disorder in the neighbouring parts, as well as by invigorating them, and thereby disposing the ulcers to heal. Of this kind, are fumigations of *hydrargyrus sulphuratus ruber*, and *hydrarg. cum sulphure*. Also light frictions with mercury, so as to make it pass freely through the lymphatics of the distempered parts, without affecting the system, have in a course of time been beneficial, and deserve to be brought into more general practice than they have hitherto been.

UNDER such a plan, it will be very necessary that the body be kept open; and to this end, one dram, or more, of Epsom salt may be dissolved in a pint of water, and taken every day as common drink. This quantity of salt will give very little taste to the water, and, in some instances, has alone had a good effect in this dreadful complaint, especially in stronger children and such as are otherwise healthy. On the other hand, children of a delicate  
and

and spare habit are more likely to be benefited by the tonic remedies before mentioned, and such as warm and invigorate the system; of which class one lately recommended in *France* has been found exceedingly useful, and of which I shall here subjoin the form in which I have generally made use of it.

R. Ammoniæ ppt. ʒij.

Rad. Gentian. incis. ʒj.

Affunde Spir. Vini Gallici ʒxij.

Fiat Tinctura.

Sumat æger cochl. infantum ad cochleare largum ex aquæ puræ q. f. ter, quarterve in die.

I HAVE lately had further reason to be confirmed in the above opinion respecting stimuli, from observations communicated to me by Mr. PARTINGTON, who since the hints I threw out in the afore-mentioned work, has made use of electricity with very good effects, in these, as well as other cold tumours and ulcers I had mentioned; which have all healed very kindly, in consequence of this stimulus to the parts. When scrofulous ulcers have been healed, and only some small tumours remain, I have experienced very good effects from

from the external use of as strong a solution of camphor in oil of almonds as can be made, which has dispersed them very soon; and it has been found a very successful remedy, in the cure of the incipient bronchocele, though enlarged to the size of a turkey's egg; and requires only to be very well rubbed into the parts, three times a day. The patient should at the same time take a dram or two of the tartarified natron every morning.

AN obvious discrimination should be made in regard to tumours about the neck, at the sight of which parents seldom fail to be alarmed; since many of them are of a harmless nature, or even salutary, the consequence of a slight feverish disposition, or of some little cold from a sudden stroke of air on the neck. These rise suddenly, become painful, and increasing daily in size, either very soon put on the usual appearance of suppuration, or begin to subside; and whether they break or not, are no indication of any thing materially wrong in the habit. On the contrary, scrofulous tumours always rise slowly, often continue a long time at a stand, and sometimes are not only months, but even some years before

fore they suppurate; and then with very little pain, or true inflammation.

I SHALL only add, on the head of scrofula, what is very well known, that sea-bathing alone, sometimes effects a perfect cure. Should the child therefore have several scrofulous tumours, or the habit be conceived to be much affected, trial should be made of the sea, in whatever manner it may be determined the tumours shall be treated, if not dispersed by sea-bathing, as they frequently are.

#### ISCHURIA VESICALIS È MUCO.

By this term is here intended an affection of the prostate gland, or the coats of the bladder, though the same symptoms may also arise from the ureters or kidneys, whether owing to a stone or other stimulus.

It sometimes appears during dentition, and other inflammatory affections, and will then call for cooling remedies: it generally disappears when the teeth have made their way through the gums, and the fever subsides. In more advanced childhood, there is nothing like  
fever

fever or other precise marks of disease, though, it may be said, this disorder more commonly attacks children of a tender and delicate habit.

It is attended with frequent inclination to void the urine, and with more or less pain in its excretion, or more commonly, I think, before it begins to come away. The urine is very foul, is loaded with a very ropy mucus, and sometimes comes away discoloured with blood, and at others, small coagula may be seen at the bottom of the vessel. This disorder, indeed, puts on every appearance of the like disease common in adults, especially old men, but is usually much slighter, and therefore more easily and speedily cured; for children being more irritable, the urinary passages are over stimulated by causes that would not affect adult persons.

THE appearance is, nevertheless, alarming, as it may, possibly, arise from a morbid affection of the prostate gland, or the bladder, and must then be a serious complaint; or it may be owing, it has been observed, to a stone in any of the urinary passages, in which case a cure cannot be effected as long as the stone remains. Fortunately, however, this is not a frequent



frequent cause in early childhood, and is not the case here intended.

THE disorder sometimes yields in two or three weeks to mere diluent, and demulcent medicines, such as the milk of almonds, with syrup of marsh-mallows, barley-water and gum arabic, spermaceti, and such like ; and it is probable, in such instances, might in a short time disappear of itself.

IN other instances, more powerful means are required, which, either by creating a different stimulus, change the action of the parts affected, or, by their restraining, prevent that secretion which has been the cause of the irritation.

THE lime-water, aq. kali, balsamum copaibæ or a decoction of the bark, seem to be the properest remedies in the absence of fever. From three to ten drops of the aq. kali, or balsam. copaibæ, according to the age of the child, will be a proper dose, and may be taken three or four times a day, as the urgency of the complaint may require.

AFTER appearances of being perfectly well, the urine, in some instances, has become as turbid and mucous as at first, and the former  
irritation

irritation returned. In one such case, the complaint seemed to yield to an infusion of the golden-rod, of which two or three table spoonsful were taken three times a day. To this the mother of the child had been advised by one of her friends, upon the complaint returning some time after I had declined my visits.

ISCHURIA RENALIS, *or* SUPPRESSION of URINE.

THIS dangerous disorder is easily distinguished from the ischuria vesicalis, or ordinary suppression of urine, in which the secretion is duly made in the kidneys, and the urine conducted to the bladder, but being detained there, the accumulation is readily discovered both by the pain and tumour on the lower part of the belly, or seat of the bladder. In the ischuria renalis, on the other hand, the urine is not secreted at all; but the superabundance of watery fluid is retained in the blood.

THIS disorder, I believe, is more common in adults, especially elderly people, than in childhood, and if the secretion be not restored

in about twenty-four hours, the suppression has usually proved fatal very soon ; though it is not commonly preceded by any considerable derangement of the general health.

IN these respects it corresponds with the ischuria of infants ; for the first, and a very accurate account of which dangerous disorder, we are obliged to Dr. WILLAN, who happened to meet with several instances of it within a short space of time. In each of these the disease was introduced by similar symptoms, a slight feverish heat being observed for about a week, accompanied with diarrhæa, and sometimes bilious vomiting. Towards the end of this time the urine was made in small quantity, and in about twenty-four hours the discharge of it entirely ceased, and the patients died unexpectedly, without complaining of pain or any particular uneasiness.

INFLAMMATION of the mesentery is judged to be the source of the above symptoms ; and the suspicion has been supported, in one instance, by an examination of the parts after death. A gangrene also, which had taken place, Dr. WILLAN conceived to be the cause of the fatal suppression of urine ; but in a subsequent

sequent instance, it was found otherwise, the patient being perfectly recovered from the suppression, and apparently restored to health by the application of leeches to the belly, and a blister near to the os sacrum; but the child died about a month afterwards with symptoms of hydrocephalus, distinctly marked.

THE above mentioned remedies, with gentle purges, clysters, and cooling diuretics, and the repeated use of the warm bath, are, probably, every thing that our art has to offer for the cure of this novel disease in infants; and were its symptoms more distinctly marked, or formidable in their first appearances, so as to lead to a recourse to it on the earliest approaches of the disorder, the remedies might be oftener successful than they have hitherto been.

## THE GRAVEL.

ALTHOUGH we see children of almost every age afflicted with stone in the bladder, and such frequently voiding gravel mixed with their urine, the gravel is, by no means, a

common complaint in others. I have, however, been lately two or three times consulted for children, under three years of age, who have been so affected.

THE disorder, I believe, is usually flight at this early age, and merely accidental, sometimes disappearing of itself in a few days, or after taking only a little oil and manna, or other soft laxative, and some of the demulcent medicines recommended for the ischuria è muco. In other instances, I have directed a decoction of marsh-mallow and parsley roots, sweetened with syrup of marsh-mallows or honey; or the infusion of sweet-fennel and wild parsley seeds. A bit of castile soap also may be dissolved in milk and taken as a breakfast, or supper; or a few drops of bals. copaibæ, be administered two or three times a day, and the body kept open by the tartarised tartar, or sal polychrestum.

SHOULD the complaint be attended with much pain, the warm-bath would, probably, be useful; but I have never known it so great as to require any kind of opiate.



INCONTINENCE *of* URINE.

THIS is not a very common complaint, I believe, in children, unless combined with the stone in the bladder, and then is not so constant, nor to the degree that is intended here. It is an involuntary flow of the urine, sometimes by day as well as during the night; arising, I apprehend, from a relaxation or other affection of the sphincter of the bladder, as in very old people, but is not attended with manifest fever, nor symptoms of decay. An affection of this kind, in which the urine runs away in the sleep only, is more common; and I have known it continue to the age of fifteen or sixteen years when not properly treated, and afterwards yield to sea-bathing. If, however, it be an original affection, and confined only to the night, (when every part is more disposed to relaxation) and the child be young, it usually disappears as the child grows up, and thereby acquires strength; but it may be often assisted in the mean time, merely by exercise, living on dry food, dashing

ing

ing the contiguous parts with cold water, and such little means as may tend to impart tone to the sphincter muscle and the neck of the bladder, and scrupulously abstaining from drink near the time of going to bed.

THE total incontinence generally comes on gradually, and is sometimes attended with excessive gonorrhæa, even in very young children, and is more difficult of cure: so likewise, if the complaint should succeed to other disorders, as the stone, inflammation of the neck of the bladder, or forcible use of the catheter; and especially, if it follow any somniferous disease, or a palsy of any other part of the body.

TINCTURE of catechu, or of gum kino; the bark; balsam. copaibæ, and white vitriol may be made trial of; but nothing is usually so effectual as repeated blisters applied over the os sacrum, or lower part of the back; and proper doses of the tinctura cantharidis, given in some soft emulsion. This may be administered in doses of ten or fifteen drops to children from five to ten years of age, and increased to two scruples and a dram; which has generally removed the complaint if there  
has

has been no morbid affection of the spine, as is sometimes the case. If these means should fail, recourse should be had to sea-bathing.

POLYDIPSIA, *or* EXCESSIVE THIRST.

THE affection here adverted to is not a symptomatic, but idiopathic disease, though it seems to depend, indeed, upon an idiosyncrasy, or peculiarity of temperament; and is equally incident to children, as to adults. It is, however, so rare a complaint in either, that but little can be said of its true nature, there being only four or five instances of it, I believe, upon record. Of these, one began at, or soon after birth, and another when the child was about four years and a half old; a short time before it was seized with the natural small-pox. The former is now an adult woman, and mother of eleven children, in whom the disorder still continues in a very extraordinary degree. The latter is yet a child, is very lively, and though apparently healthy drinks every twenty-four hours ten quarts of water, and makes daily twelve of  
urine,

urine, as pale as the water he drinks. Through the day he requires a draught every half hour, and once every hour in the night.

DR. SIMMONS, I believe, gave to the public the first accounts of polydipsia, as idiopathic, and has been at great pains, in ascertaining the facts. ZUINGERUS, indeed, speaks of immoderate thirst as a very common affection of young children, coming on without fever or any other complaint, unless it be a lassitude of the extremities: says, the appetite continues very good, but the desire for drink so great, that on with-holding it, they express vehement displeasure, and are threatened with convulsions, and other nervous disorders. He does not, however, allude to the quantity that such children require, and adds, that in a little time their bellies become tumid; that they are subject to glandular affections, and fall into atrophy. On these accounts, this species of polydipsia seems to have no relation to the cases adduced.

THE above mentioned instances of it occurred in *France*; and one has been met with in *Stanground*, near *Peterborough*, in an adult man near fifty-five years old, in whom the affection

first

first took place after an ague and fever, when he was in his twenty-seventh year. A similar case also presented about three years ago at the Middlesex-hospital. This was in a child, but the thirst was not in this instance so great as in the aforementioned ones.

THOUGH I can, indeed, have nothing to offer with any confidence, for the treatment of a disorder which I have never yet seen, and which depends upon a peculiar temperament of the body; yet this rare and curious disease appears worthy of some notice in a work that is thought to comprehend a more compleat account of the disorders of children than has hitherto appeared. A slight record of it will also possess the further advantage of apprising those who have the care of their health, of there being such a complaint; which it is presumed cannot fail of being acceptable, if any into whose hands the work may fall should meet with children who have any evident tendency to it.

How far internal tonical medicines, with the cold-bath and electricity, or attempting to promote insensible perspiration, might tend to a removal of it, upon its first approaches,



though I can by no means venture to say, they may, possibly, be worthy of trial; but if neither these, nor any other remedies that may be suggested, should pretty soon afford any degree of relief, it is presumed, that no violence should be offered to so peculiar a temperament, lest some worse or real evil should appear in its place.

THE SEVEN-DAYS-DISEASE, *and* PECHEGUERA  
*of Spanish South-America.*

I SHALL close this part of the work with a brief account of two very extraordinary disorders, which should have been noticed among the earlier complaints of infants, if they had been diseases of this country, or even much known in other parts of *Europe*. As the *seven-days-disorder* has, however, actually made some appearance in this quarter of the globe, and may, therefore, at some future period, become more common, it may be proper it should be mentioned in a work of this kind. The following account is translated from the *French* of Mr. *Le Febure de Villebrune*, who  
refers

refers to the *Spanish* work of *D. Ulloa*, (*Disc.* XI. § § 19 and 20) and *Barrère's Voyage to Guinea*.

§ 19. THE disease of seven days of new-born infants is common in both quarters of *America*, and equally dangerous in the high, as in the low parts. A great number of infants die of it, without any thing preceding that could occasion it to be suspected. They are, on the contrary, apparently healthy and robust, when the disorder makes its attack in the form of epilepsy; and few of those who are visited with it are found to recover. Though, it has been said, this complaint is not altogether unknown in *Europe*, it is neither so common, nor so dangerous. It is conceived that the best preventive would be to guard infants from being exposed to the wind, till the first seven days are over.

§ 20. BUT infants at *Guaneavelica* are still liable to another very extraordinary complaint. Having escaped the seven-days-disease, they thrive well until the third or fourth month; they are then seized with cough and pulmonic affections, which they there call *pecheguera*. The complaint goes on increasing without any  
sensible

sensible relief from the medicines made use of; and a swelling taking place, they presently die. The disorder attacks only the *white people*, or children of the *Spaniards*; the *Indians* and the *mongrels* are not subject to it. The way to escape it, is to remove infants from the spot, before they are two months old, and to carry them to more favourable climates, into one of the *Zuebrades*, (or low grounds between the mountains) that are at a little distance. It is imagined, that the cold and intemperature of the climate is the occasion of infants being so soon seized with this complaint. This may be the case in some degree: but the vitiated habit of body of their parents, and the sulphurous vapours continually arising from the furnaces for the extraction of mercury, may likewise contribute to it. In fact, these vapours are so abundant, that when reunited by means of the cold, they form such a thick cloud in the atmosphere, during the season there called summer, as to cover all the colony. *Notic. American. Disc. II. p. 205. L.*



